



**Maternal and Child Health Services  
Title V Block Grant**

**State Narrative for  
Massachusetts**

**Application for 2011  
Annual Report for 2009**



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## **I. General Requirements**

### **A. Letter of Transmittal**

The Letter of Transmittal is to be provided as an attachment to this section.

***An attachment is included in this section.***

### **B. Face Sheet**

The Face Sheet (Form SF424) is submitted when it is submitted electronically in HRSA EHB. No hard copy is sent.

### **C. Assurances and Certifications**

Massachusetts hereby attests to all of the Assurances and Certifications required for this Application. Copies signed for this application are on file with the Massachusetts Department of Public Health and are available upon request to either the Title V Director or the Department's Chief Financial Officer.

### **D. Table of Contents**

This report follows the outline of the Table of Contents provided in the "GUIDANCE AND FORMS FOR THE TITLE V APPLICATION/ANNUAL REPORT," OMB NO: 0915-0172; published March 2009; expires March 31, 2012.

### **E. Public Input**

Extensive public input into the development of the MCH Block Grant Application this year has focused on the needs assessment process, which is described fully in our Five-Year Needs Assessment document attached to Part IIB. of this Application.

Drafts of the Needs Assessment findings, along with links to the previous Application, state Performance Measures, and Priority Needs, have been posted on the Department's website for review and comment. The final Application and Annual Report will be posted there as well, so that any additional input can be incorporated into the final Application, Annual Report, and Needs Assessment documents this fall, along with any revisions or suggestions from our federal review.

Attached to this section is an updated list of advisory committees that help inform the Title V program. Each advisory group discusses aspects of the Title V application and needs assessment that pertain to it. Input over the course of the year helps keep Title V up to date

***An attachment is included in this section.***

## II. Needs Assessment

In application year 2011, the 2010 Needs Assessment will be attached to this Section II.

*An attachment is included in this section.*

### C. Needs Assessment Summary

The people served by the programs of Massachusetts Maternal and Child Health grant have experienced great changes in the last five years. To respond effectively to these changes, starting in mid-2009, the Massachusetts Department of Public Health (MDPH) has been conducting a systematic review of changes and needs in the state, led by the Title V Director, Ron Benham. A MDPH-wide Steering Group comprised of senior leaders from throughout the Department has overseen the project, which has included extensive internal and external stakeholder engagement.

Changes in the following domains were significant factors in revising the state's priorities. These emerged from the extensive data collection and analysis and engagement with stakeholders throughout the needs assessment process including surveys, key informant interviews, focus groups, and public hearings on the draft priorities.

**Massachusetts Health Care Reform:** In 2007, the Commonwealth embarked upon a substantial overhaul of its health care system and while health insurance coverage is improving, a new bottleneck has emerged in the health system: access to primary care.

**Economic conditions & projections:** The severe recession has changed short-term behaviors and reduced long-term projections for the overall economy and subsequent state funds for public health. The state is experiencing higher demand for public health services even as state revenues to fund those services have and are likely either to continue to decline or to remain static for the foreseeable future.

**Demographics:** The state's overall population increased by 2.3% from 2000 to 2008. The foreign-born population (35% from Latin America) is increasing. Massachusetts now ranks #8 in percentage foreign born among states.

**Health & wellness trends:** Massachusetts residents overall enjoy better health care and health outcomes than US residents on average. Yet we also have substantial racial, ethnic, and geographic health disparities, and we fall short of national averages in several critical areas of infant health outcomes. Obesity, uncontrolled asthma, violence and unintentional injury, poor mental health, infectious disease, and substance use have all emerged as areas critical for the long-term well-being of Massachusetts residents.

For 2010, Massachusetts Title V completely reconsidered the needs of the population and used the perspectives of the Life Course Model and Social Determinants of Health to ensure relevance to the current MCH populations. The following summarizes the 2010 priorities and their relationship to changes in the state over the past five years.

1. Promote healthy weight continues as a priority as Massachusetts builds strategies to deal with the obesity epidemic in the state and nation.
2. Promote emotional wellness and social connectedness across lifespan builds upon the mental health priority of 2005 with a more specific focus on wellness and an understanding, built upon the Life Course perspective, that mental health is a cumulative outcome of heredity, experiences, support, education, and environment.

3. Coordinate preventive oral health measures and promote universal access to affordable dental care is a more specific oral health priority than 2005. Oral health in Massachusetts strongly correlates with income status. The state's oral health statistics highlight poor access and affordability of oral health care, two of the leading reasons for the disparity in outcomes.

4. Enhance screening for and prevention of violence and bullying revises the violence priority from 2005. To reduce violence, we focus on ensuring that screening for violence is built into programs to stop cycles of violence and the impact of violence on mental wellness. One area where violence can be prevented is to stop bullying and the negative impact it has on the health and wellness of MCH populations.

5. Support reproductive and sexual health by improving access to education and services is a new priority centering on the need to support reproductive and sexual decision making by ensuring that all residents have equal access to education and services.

6. Improve the health and well being of women in their childbearing years is a continuation of the priority from 2005 as the state focuses on disparate populations and the many reasons for poor outcomes.

7. Reduce unintentional injury and promote healthy behavior choices for adolescents combines and revises the previous injury and adolescent health priorities. As unintentional injury and "accidents" are increasingly understood as preventable public health events, this priority focuses on healthy choices and encouraging informed decisions regarding health and wellbeing.

8. Expand medical home efforts to systems building and securing access and funding for children and youth is a new priority. The Massachusetts Title V agency has long been active in promoting medical home for children and youth with special health care needs. This priority a shift in strategy to promote medical home for all children.

9. Support effective transitions from (1) early childhood to school and (2) adolescence to adulthood for CYSHCN expands the previous transition priority to include both the transition into school and the transition into adulthood. Although transitions are important for all children, this priority is focused on CYSHCN.

10. Improve data availability, access, and analytical capacity is a revision of the previous data-related priority to improve the capacity of data systems and encourage improved utilization at both the state and community levels.

While only one capacity priority remained in the selection of top ten priorities for the state, the capacity needs of programs and services to improve the health outcomes of the MCH population will be an ongoing effort as Massachusetts develops action planning to improve these priority areas.

### **III. State Overview**

#### **A. Overview**

Massachusetts has long been at the forefront of public health. The State's population overall has high levels of income and education built upon a diversified economic base. These advantages have translated into a history of good availability and access to health services including a history of strong support for funding of health and social service programs. "During the 1700's, the smallpox inoculation was pioneered, the first pure food legislation was enacted and the first public clinics were opened." More recently, the state has served as a model for the nation by instituting comprehensive health care reform, significantly reducing the ranks of the uninsured and requiring all residents to have health insurance.

According to Milton Kotelchuck, Chair Emeritus and Professor at the Boston University School of Public Health, maternal and child health status in Massachusetts is good, "especially compared with to U.S. national rates." However, there remains room for improvement. Infant mortality rates have not improved since 2000 and low birth weight and prematurity rates have deteriorated in the past decade. Because of these and other factors, the need for special health and educational services, especially early intervention, has increased.

A significant trend in Massachusetts, as well as in many other parts of the country, is that births have become more diverse in terms of maternal race, ethnicity and age. At the same time, disparities in maternal and child health outcomes, according to Kotelchuck, and many others, "remain glaring." Many social determinants of health, including income, education, ethnicity and related, well-known factors have contributed to these disparities.

#### **Title V Program Role**

The Massachusetts Title V agency, the Bureau of Family Health and Nutrition (BFHN), reports directly to the Commissioner of Public Health, who reports to the Secretary, Executive Office of Health and Human Services (EOHHS). This structure provides Title V program with tremendous capacity to promote comprehensive systems of service, to coordinate initiatives, and to work collaboratively across the full range of relationships necessary for a comprehensive approach to Title V goals. The direct relation of the Massachusetts Title V program to the Department of Public Health means that the priorities and initiatives of both are entirely in sync and furthered by many formal and informal relationships.

The philosophy of the Massachusetts Title V program is that in order to fully address the health needs of mothers and children, systems, programs and services need to consider the health of the entire family, including the community, across the lifespan. In the Bureau of Family Health and Nutrition, all systems and programs begin with this philosophical approach -- addressing the needs of women, children and youth, including those with special health needs, within the context of the family. The state's philosophy simply stated is: "Healthy families lead to healthy children." More detail about the Title V program's capacity is provided in Section III. B. below.

#### **Principal Characteristics**

Massachusetts is the 15th largest state by population, based on 2008 estimates. In recent years, international migration into the state and births by foreign-born mothers have nearly offset the migration out of the state. The estimated population of Massachusetts grew by 2.3% between 2000 and 2008. The Commonwealth's 6,497,967 residents included the following: 15.9% are females aged 0-24 years; 16.2% are males aged 0-24 years; and 13.8% are women aged 25-44 years

The racial and ethnic make-up of Massachusetts has changed dramatically since the mid-twentieth century. In 1950, one out of 50 people was non-White; today, one in five is non-White. According to 2008 Census estimates, racial and ethnic minorities constituted 21% of the Massachusetts population (non-Hispanic Blacks 5.9%, Hispanics 8.6%, non-Hispanic Asians

4.9%, and two or more races 1.2%). This is a change of 4% since 2000 with a nearly 2% overall increase in the portion of Hispanics. In 2000, minorities constituted 17% of the population (Non-Hispanic Blacks 5.5%, Hispanics 6.8%, Asians 3.8%, and two or more races 0.9%).

By 2010, Massachusetts' population is projected to increase moderately to 6,649,441 with minority populations continuing to account for a large portion of population growth. In several Massachusetts communities, including Boston, minority groups now constitute the majority of the population.

Massachusetts continues to rank eighth in the U.S. in its population of foreign-born persons. The percent of foreign-born residents increased from 12.2% to 14.2% from 2000 to 2007. According to a 2007 report from the Pew Hispanic Center, among foreign-born persons in Massachusetts:

- 35% were from Latin America
- 27% were from Asia
- 27% were from Europe
- 7% were from Africa
- 4% were from North America.

Estimates of the number of immigrants and refugees, especially unauthorized immigrants, vary due to the inherent difficulty in counting changing populations whose language is not English. These individuals who experience cultural isolation are often reluctant to talk to outsiders, especially those who have questions about immigration status. A PEW study estimated the unauthorized immigrant population in the Commonwealth at 190,000, ranking the state as 14th in unauthorized immigrants, directly behind Maryland, Colorado, and Nevada.

Twenty percent of Massachusetts residents spoke a language other than English at home based on the 2007 census survey. Among those aged 5 years and older, 34% spoke Spanish at home, which represents the largest second language group. Among all those that speak a language besides English at home, 43% report speaking English 'less than very well'. Forty-five percent of Spanish native speakers and 50% of Asian and Pacific Island native speakers are "less than well" fluent in English.

Racial and ethnic differences often correlate with economic and health differences. Minority populations in Massachusetts in many cases have a lower socioeconomic status and have less access to services, including opportunities for exercise and access to healthy foods, in addition to preventive health services. Thirty-nine percent of those living below 100% FPL in Massachusetts are minorities, nearly twice as many as in the population as a whole. Forty-one percent of Hispanics and 30% of blacks live under 100% FPL in Massachusetts.

The high cost of living in the state challenges lower income and minority populations. Massachusetts has a lower portion of the population living under 200% of the FPL compared with the nation (31% versus 36%), but housing and food costs are also higher than in most of the country, putting economic pressure on many families. For example, a worker earning minimum wage (\$6.75) would have to work 134 hours a week to afford a two-bedroom apartment in Boston. The challenge for lower income individuals to maintain living standards in the state translates into decreased ability to move out of their current socio-economic class.

#### Unique Challenges, Current and Emerging Issues

The people served by the programs of the Massachusetts Federal-State MCH Partnership have experienced great changes in the last five years. We have categorized these changes into seven domains that emerged during our comprehensive needs assessment for 2010. The full needs assessment document (which is an Attachment to Section II, Part B.) presents considerably more detail about each topic.

#### 1. Massachusetts Health Care Reform and Delivery of Services



In 2007, the Commonwealth embarked upon a substantial overhaul of its health care system, to reduce the number of uninsured residents, estimated at about 8.5% of the state's population aged 65 years and under in 1998. The legislature implemented a health insurance mandate with tax penalties and created the Commonwealth Health Insurance Connector Authority to link citizens with new and existing health plans that have varying levels of state subsidies, depending on members' income levels. By 2009, the Commonwealth decreased the proportion of the uninsured population to 3% and the rate continues to decline. Among children aged 18 years and under, only 1.2% are uninsured. Over 400,000 Massachusetts residents are newly insured, with 150,000 having joined the newly created Commonwealth Care plans.

While health insurance coverage is improving, a new bottleneck has emerged in the health system: access to primary care. Increasingly, too many people wait longer than six months for a physician appointment. In certain regions of the state, the number of primary care providers (PCPs) is insufficient to care for the population adequately, and many PCPs are not accepting new patients. There are also substantial regional disparities in access to specialty care (e.g., Ob/GYN in western Massachusetts) and widespread problems with access to culturally competent care, especially for non-English speakers.

Hospitals and Community Health Centers have a similar distribution to physicians and other providers across the state with high concentrations in the Boston area and limited access in rural regions. For populations that need coverage best performed outside of acute care facilities or private physician offices, the state relies on a strong network of Community Health Centers. The Centers provide preventive care, health screening, interventions and treatment, and co-site many programs supporting the MCH population such as co-located WIC local programs. As Massachusetts does not have a county- or city-based health services system, Community Health Centers (CHCs), along with a few remaining hospital outpatient departments, serve as the state's key safety net providers. Low-income uninsured and underinsured, high-risk Medicaid recipients and other individuals facing barriers are able to access health care through a statewide network of 52 CHCs that serve nearly 800,000 state residents through 285 sites. Ninety percent of Community Health Center patients have incomes below 200%FPL, with 67% belonging to a racial or ethnic minority group.

To summarize from the reviews of insurance, providers, and MCH program services, the priority state concerns are:

**Access to care:** In many rural and poor urban areas of the state, the number of specialty providers is insufficient to care for the population adequately, and many PCPs are not accepting new patients. For those not in a professional shortage area, the time to get an appointment with a primary care physician typically is long. The demand for services has increased without an increase in capacity following Health Reform. The availability of care is less for CYSHCN who have complex medical needs in addition to behavioral issues that may require special training. Some of disparities in the distribution of physicians and other health professionals are the result of a critical imbalance in the ability of CHCs and other safety net providers within these underserved areas to recruit and retain physicians. These providers have difficulty in matching competitive salaries and benefits in this marketplace, particularly with those offered by hospitals and affiliated group practices.

**Affordability of care:** Despite Health Care Reform, high premiums and deductibles, in addition to co-pays, place a cost burden on low and middle income families.

**Cultural/Linguistic appropriateness of services:** Health provider agencies must ensure that their staff are well trained in medicine and also in the culture and language of the local population in need of services.

## 2. Impact of private sector economic conditions & projections

The second half of 2007 saw the start of a serious recession as the financial service sector declined across the nation. Throughout 2008 and 2009, the financial crisis had a substantial

negative impact on corporate investment levels. In particular, unemployment rates reached historic highs in the US. Similarly, Massachusetts saw its own unemployment rate rise to over 9% by late 2009. State revenue is down 10.9% from 2008.

The severe recession has changed short-term behaviors and reduced long-term projections for the overall economy and subsequent state funds for public health. While it is too early to anticipate the long-term impact of the recession, the overall mood has become more conservative for both consumers and businesses. The state is experiencing higher demand for public health services even as state revenues to fund those services have fallen. State funding are likely to continue their decline or at best remain static for the foreseeable future.

### 3. Demographics & Geography

Residents live in a wide mix of urban, suburban and rural areas. The eastern part of the state, excluding Cape Cod and the Islands, is relatively dense and urbanized compared to the west, which is mostly rural. According to 2008 census estimates, nearly 63% of the Massachusetts population lives within the group of eastern counties immediately surrounding and including Boston.

While the Western region looks comparably well covered by the medical community in terms of physicians, nurses, and hospitals per capita, the geographic distances covered and natural barriers between communities results in limited access to services. Rural and small town culture, a lack of resources such as transportation, and family and work-life needs are such that it is difficult for many rural residents to travel to cities to receive services on a regular basis. For instance, many communities in the Berkshires must cross a mountain range to visit the nearest secondary or tertiary care center or community health center. Similar to the Western region, the islands of Nantucket and Martha's Vineyard have populations too small to support major medical facilities and the year round community often has restricted access to mainland services in winter due to weather conditions and reduced ferry service.

### 4. Health & Wellness Trends

Massachusetts residents overall enjoy better health care and health outcomes than US residents on average. For instance, in terms of infant death rate, breast feeding initiation, teen pregnancies, and birth weights, Massachusetts ranks high against other states.

Yet we also have substantial racial, ethnic, and geographic health disparities, and we fall short of national averages in several critical areas. Infant mortality rates have ceased improving since 2000. Low birth weight and prematurity rates have steadily worsened for the past decade, increasing the need for more special health and educational services. Massachusetts has also experienced increases in gestational diabetes mellitus (GDM) and cesarean deliveries.

The following are some highlights in areas critical for the long-term well-being of Massachusetts residents:

#### Obesity

- All age groups have experienced an increasing prevalence of overweight and obesity. More than half (57%) of Massachusetts adults are obese or overweight (53% of women). Among children aged 2-17 years, 30% are obese or overweight. The proportion of births to mothers diagnosed with GDM increased by 49% between 2000 and 2007.

#### Infant and Children's Health

- Fetal deaths continue to account for more than half of the state's feto-infant mortality rate. Rates are highest for Hispanics and Black Non-Hispanics
- 10.3% of Massachusetts children have current asthma
- 50.9% of them had activity limitations due to asthma in the past year
- 65% of these children reported that their asthma was not well or very poorly controlled
- Children aged 0-3 years have experienced increasing speech delays. The Early

Intervention (EI) Program served 10% more children in 2008 compared with 2005. EI expenditures are up to \$97M in 2008 vs. \$80M in 2005

- There has been a nearly 40% increase in the number of autistic children in EI in Massachusetts from 2005 to 2008

#### Violence and Injury

- Injury is the leading cause of death among Massachusetts residents aged 1-44 years. Most injury deaths in Massachusetts are unintentional (75%), followed by suicide (15%), homicide (6%), and those of undetermined intent, other, or adverse effects (4%). Unintentional injuries resulting in death were predominantly due to auto accidents (#1 cause of death among youth aged 15-24 years accounting for 37% of deaths).
- Among non-fatal unintentional injuries, falls were the leading cause of injury for all age groups under 14 years.
- Black males aged 15-24 years were 30 times more likely than White males to die from homicide. For Black non-Hispanic residents age 0-19 years, injury deaths from firearms were more than twice as high as motor vehicle deaths.
- Females (15%) report having experienced sexual violence at twice the rate of men (7%). Women with a disability (25%) were even more likely to have experienced sexual violence compared with women without disabilities (13%).
- Violence is prevalent among youth and especially youth with special health care needs. More than 1 in 4 high school (HS) students have been involved in a physical fight and 15% of youth in each grade report bullying. Fifteen percent of high school females have been physically hurt by a date and 19% have had sexual contact against their will.

#### Mental Health

- Massachusetts ranks 22nd nationally in reported poor mental health days. In 2008, 7% of Massachusetts adults reported 15+ days of feeling sad, blue, or depressed in the past month. Among Massachusetts youth aged 12-17 years, 9% suffered an episode of major depression in the past year.
- Suicide is the third leading cause of death among youth aged 11-18 years. Among high school students in Massachusetts during 2007, 24% reported feeling sad or hopeless enough to halt usual activity; just over ten percent report a suicide plan. From 1999 to 2005, 3,018 suicide attempts in the state of Massachusetts resulted in death.
- Postpartum depression affects women across different backgrounds, with less than half seeking help. Ten percent of women surveyed by PRAMS reported they often or always experienced little interest in activities postpartum. Other, non-Hispanic women (17.9%), those under the age of 20 (13.5%), those with some college education (16.2%), those living at or below poverty level (16.8%), and non-US born mothers (14.9%) were most likely to report loss of pleasure or interest in activities. Further, among women indicating they felt depressed often or always, about 40% reported they sought help for depression.

#### Infectious Disease

- Rates of Chlamydia have increased since 2000. Among youth aged 15-19 years, the overall incidence of Chlamydia is 1080 per 100,000. However, the rate is disproportionately high in Boston and Western Massachusetts (2,890 and 1,641 respectively) compared to other regions.
- While the rate of diagnosis of new HIV/AIDS cases is declining, the prevalence of HIV/AIDS increased 26.5% from 2000 to 2006, in part due to more effective treatments. New cases disproportionately affected Blacks and Hispanics and were concentrated in the city of Boston.

#### Tobacco, Alcohol, and Drugs

- The number of women who reported smoking during pregnancy declined 60% (19.3% in 1990, 7.5% in 2007)
- In 2007, 63.1% of Massachusetts women aged 18-44 years reported any use of alcohol (vs. 50.3% nationally) and 19.5% of those reported binge drinking (vs. 14% nationally). In 2007, 11.5% of women reported alcohol use in the last 3 months of pregnancy

- A substantial percentage of youth engage in high-risk behaviors:
  - o Twenty-eight percent of high school students reported binge drinking in the previous 30 days.
  - o Nineteen percent of high school seniors have had four or more sex partners and more than one-third of sexually active high school students did not use a condom at last sex.
  - o One in four high school students reported having ridden in a car in the past 30 days with someone who had been drinking.

#### 5. Knowledge and understanding of health and wellness

The last decade has seen tremendous advances in the understanding and practice of health care and public health. Public health interventions focus increasingly on policy change and environmental strategies to influence factors contributing to poor individual health outcomes and poor population health status. As this change in understanding naturally influences MDPH priorities, a few critical themes are as follows:

- Life course perspective - Solely focusing on a disease or "body parts" is not enough. Innovative health care takes an increasingly longitudinal perspective: what happens in one stage of a person's life affects outcomes in future stages and the next generation. Two key components of the life course model include understanding the pathways and trajectories that lead to a multitude of health outcomes and a focus on the impact of early programming or exposure to risk that may have long-term health consequences. This new understanding includes the following:
  - o Social determinants of health including economic opportunity, community environment, and social factors experienced in early childhood, childhood, adolescence, and adulthood plus individual physical and mental health factors affect population health outcomes including mortality, morbidity, life expectancy, and quality of life.
  - o Maternal and family physical and mental health, practices, and living environment all affect an infant's health risk.
  - o Early-childhood problems encountered and not addressed in formative years can have an impact on the person's future physical and mental health.
  - o Life transition points (e.g. childhood to school, adolescence to adulthood, etc.) are sensitive periods of critical importance because of the number of changes that influence long-term health such as diet, activities, social network, built environment, and access to health care.
  - o Life transitions, such as pregnancy and pre-pregnancy, offer critical teachable moments, where individuals confront significant change and are more open to guidance.
  - o Certain populations will experience disproportionately adverse health outcomes based on differential access to resources and the presence of protective or risk factors that contribute to their health outcomes.
- Holistic perspective -- Related to the life course perspective, we should view health as more than a series of acute health conditions or particular diseases. We should consider the individual in a holistic manner, and consider such factors as financial status, family situation, community ties, and the built environment.
  - o Mental health and oral health have emerged as strong components of overall well-being.
  - o Stress and depression correlate with poor health outcomes for mother, infant, and family.
  - o There are cohorts of the population, particularly adolescents, that exhibit a higher overall risk profile and are more likely to engage in multiple high-risk behaviors including drug use, smoking, unprotected sex, multiple sexual partners, and unsafe driving.
- Health Equity -- Disparities exist in health outcomes due to differential access to economic opportunities, community resources, and social factors. Economic opportunities may include adequate income, jobs, and educational opportunities. Community resources may include quality housing, quality schools, access to recreational facilities, access to healthy foods, transportation resources, access to health care, and a clean and safe environment. Social factors may include social network and support, leadership, political influence, organizational networks and racism. The role of public health is to establish public policy to achieve health equity and promote population based strategies which include:

- o Advocating for and defining public policy
- o Coordinating interagency efforts
- o Creating supportive environments to enable change
- o Collecting data, monitoring programs and conducting surveillance
- o Promoting population based interventions to address individual factors
- o Engaging with communities and building capacity

#### 6. Learning and Influencing Behaviors

There is an important social component to learn new information or change existing behaviors. Advances in computing and electronic social media over the past several years have increased the opportunity to engage individuals and groups at a personal level. Additionally, MDPH will need to take advantage of new media to remain a leader in influencing health. Areas of special importance are:

- Segment specific marketing and emotional messaging -- It is not enough to make people aware and provide education. Most people, for instance, know that they should lose weight and exercise more. Targeted marketing with emotional appeal is crucial to changing high-risk behaviors.
- Social networking -- The Internet, especially social networking approaches, provides new avenues of public health outreach and engagement. In Massachusetts, 58% of women use the Internet regularly. The fastest growing age groups using social networking sites, such as Facebook, are those above adolescence (largely because so many adolescents are already on it). Some MDPH programs have already seen success leveraging blogs and social networking sites.
- Essential Allies -- MDPH connects to many people but certain individuals or groups have a disproportionate influence on the actions and policy decisions of others. Strategies need to include connecting with these groups and people to communicate messages and engage stakeholders. For example, interviews with essential allies were an invaluable component of community outreach as part of the needs assessment process.

#### 7. New State Initiatives & Programs

In addition to the changes outlined above, Massachusetts rolled out several critical initiatives and programs in the last five years that inform have an impact on today's programs. Highlights include:

- Children's Behavioral Health Initiative to improve screening, assessment, and treatment of behavioral health issues for those covered by MassHealth.
- Governor's Readiness Project to build a comprehensive, child-centric education system.
- Massachusetts Early Childhood Comprehensive Systems (MECCS) project to integrate systems of care, health, and education for young children and their families.
- Mass in Motion comprehensive action initiative to help fight obesity through policy change and public education. The initiative includes new regulations requiring school-based BMI screenings and reporting, menu labeling of nutritional information in chain restaurants, social marketing campaigns, a website and blog, and grants to municipalities to promote broad-based policy changes to improve opportunities for healthy eating and increased physical activity. Mass in Motion also supports the active state legislative discussion on banning junk food in schools and encouraging access to healthy snack items.
- Under the Mental Health Parity act that became effective in 2009, health plans are required to provide mental health benefits for all residents of Massachusetts and all insureds having a principal place of employment in Massachusetts.
- On April 30, 2010, the Massachusetts state legislature passed new anti-bullying legislation in part as a reaction to the suicide death of a fifteen year old. The comprehensive measure employs new strategies for adults, new supports for students and better communications among state agencies to prevent, report and effectively address issues related to bullying.

Shifting focus to population and infrastructure building

Massachusetts public health has continually moved to building population and

infrastructure level services to have the largest possible impact and ensure systems are available to meet the growing needs in the state. MDPH has maintained direct and enabling services where necessary to fill gaps in service provision and be a complement to other resources available. Massachusetts Maternal and Child Health Programs assess capacity to meet the needs of the MCH population on these three levels:

1. Direct and enabling services, which include one-on-one patient care, medical services, and services such as insurance, outreach and other supports that help people access and utilize available care.
2. Population-based services, which are preventive and personal health services developed for a whole population, such as screenings of all newborns and educational materials for the general public.
3. Infrastructure-building services, which are the foundation for MCH activities such as the state legislative and regulatory framework for MCH, partnerships to improve comprehensive systems of care, and information systems.

#### Priorities and the Process to Determine Priorities

The process to develop the priorities for the needs assessment is similar in principle to how the MA Title V agency develops priorities on an ongoing basis. The challenge of the Title V Director will always be to balance the needs of the MCH populations with the resources, including expertise and political will, to effect change in the state that improves outcomes.

The Title V management team uses the following list of principles to guide the ongoing prioritization process:

- Promote health and well-being of MCH populations.
- Promote an understanding of the Life Course Perspective and the impact of the Social Determinants of Health within all programs.
- Promote continuity of care among all populations.
- Address health equity by targeting the increasingly diverse MCH populations in Massachusetts.
- Ensure community engagement through essential allies and others.
- Focus on family involvement, including fathers.
- Target interventions as early as possible and focus on teachable moments.
- Be nimble in awareness of and response to emerging trends, both fiscal and scientific.

The Title V management team then applies a screening process that leverages all available data and evidence, and incorporates the subjective points of views of stakeholders through surveys, interviews, and focus groups. Priorities reflect the knowledge gained from existing and past MDPH programs and activities.

In simple terms, the team uses a two-dimensional decision criterion:

- 1) What are the relevant factors affecting the likely impact?
- 2) What is the feasibility of success?

"Relevant Factors" include:

- consideration of the number of people affected (incidence and prevalence)
- the degree of importance for quality of life and long-term outcomes
- prevention based on current research or evidence
- socio-economic, cultural, or geographic disparities
- whether actions based on the priority increase or enhance collaboration with other state and private agencies.

"Feasibility" includes the following considerations:

- the level of MDPH competency in subject matter
- political and organizational will (internal and external champions)
- resource availability and relative cost
- leadership vs. follower position for particular issues

- relevance to the core mission of MCH and MDPH
- availability of government and community partners
- availability of resources to advance the work of MDPH
- presence of synergistic effect among multiple priorities (e.g., screening for mental health can include screening for substance use and domestic violence).

Success depends on both identifying how each priority is relevant to every individual service program and identifying how to best leverage the wide number of ongoing collaborations across MCH Title V and with other state and local agencies and programs. Massachusetts Title V does not have the scale to be successful in these priorities by acting alone. Success will depend on working in concert with other agencies and programs to ensure the priorities of MCH are the priorities of others in the state working for and with the MCH populations.

#### Challenges for the Coming Year

We have identified the following particular challenges facing us in the coming year.

- The economy, state revenues, and their effect on MCH funding
- Impact of health reform on programs (positive and negative)
- Continued low-birth weight rate increase
- Continued growth in EI population
- Continued disparities in health outcomes
- Outreach to increase awareness of CYSHCN programs and services
- Data architecture to support analysis and decisions
- Healthy weight
- Benchmarking and implementation of new State Performance Measures

## **B. Agency Capacity**

The Bureau of Family Health and Nutrition (BFHN), in the Massachusetts Department of Public Health (MDPH) is the Title V Agency for the Commonwealth of Massachusetts. MCH-related program areas both within the Bureau and in other Bureaus in the Department are listed and briefly described in a Table organized by the MCH Population Groups that they primarily address. This table is part of a Word document that is the attachment to this Part III, Section B (Agency Capacity). The Table is called "MCH-Related Programs, Brief Descriptions, and Services Provided" and is the first 11 pages of the file.

The Bureau is committed to protecting and improving the health status, functional status, and quality of life of Massachusetts residents across the lifespan, with special focus on at-risk populations, low-income groups, and cultural and linguistic minorities. The programmatic divisions through which the Bureau carries out its mission are described in the next section, "Organizational Structure."

An attached Figure displays BFHN and other DPH MCH partnership programs and activities schematically in relation to the levels of the "MCH Pyramid." This Figure is in the Word document that is the attachment to this Part III, Section B (State Agency Capacity); it is called "The MCH Pyramid Core Public Health Services Delivered in Massachusetts by MCH" and is the last page of the file. The pyramid includes the core public health services delivered by MCH agencies hierarchically by levels of service from direct health care services (the tip of the pyramid) to infrastructure building services (the broad base of the pyramid). The Figure lists both generic functions and services carried out by MCH agencies that BFHN provides or assures, as well as specific Massachusetts programs and initiatives. Many programs carry out activities at more than one level of the Pyramid (e.g. primary care service providers also assist families with enrollment in WIC or offer other enabling services as well; population-based lead screening programs also provide direct client case management for children found to be lead poisoned). However, for this

purpose, each program has been shown only at the level of the Pyramid that represents its primary or dominant focus based on the MCHB definitions for levels of services.

Within the Bureau of Family Health and Nutrition (BFHN), which is led by Ron Benham, the state's Title V director, are core programs to MCH health and development including the Nutrition Division with WIC, the Division for Perinatal, Early Childhood, and Special Health Needs with EI and the CYSHCN Program, and the Office of Data Translation. Through these programs the Title V agency helps guide the early developmental needs of children, youth with special health needs, and women near the time of childbirth. Several key collaborative relationships are directly assured by the location of other MCH-serving programs within the BFHN. In addition to WIC, these include Early Intervention / Part C of the Individuals with Disabilities Act (IDEA), and Ryan White Part D.

Within the Department of Public Health, the Title V Director and key program staff in BFHN collaborate closely with the Medical Director of the Department, the bureaus of Community Access and Promotion Substance Abuse Services, Emergency Preparedness, Environmental Health, Health Care Safety and Quality, Health Information, Laboratory Sciences, and Infectious Disease Prevention, Response and Services (which includes communicable disease prevention and HIV/AIDS programs), the Office of Health Equity, and the Office of Healthy Communities (which supports the department's efforts to build and support better local and regional public health infrastructure and systems of care).

A number of Federal-State MCH Partnership programs and responsibilities reside in BCHAP, the Bureau of Community Health Access and Promotion, under Director Jewel Mullen. These include family planning services, school health, primary care, adolescent health, and violence and injury prevention programs, along with chronic disease prevention and health promotion programs. Among the latter programs are strong programs in the areas of Women's Health, Diabetes, Asthma, and Nutrition/Physical Activity, with which we work closely on a number of projects and issues of joint concern across the lifespan.

MDPH also collaborates as a sister agency within the cabinet-level Executive Office of Health and Human Services (EOHHS) with other state agencies in regular meetings, cross-agency program development, workgroups and special taskforces. Other agencies within EOHHS include the Department of Transitional Assistance (welfare; state TANF agency), the state Medicaid agency (including EPSDT and SCHIP), the Department of Children and Families, the Department of Mental Health, the Department of Developmental Services, Department of Youth Services, Commission for the Blind, Commission for the Hard of Hearing, Executive Office of Elder Affairs (which includes long-term care for children as well as adults and elders), and the Division of Health Care Finance and Policy.

Beyond EOHHS, Title V has strong linkages with the Executive Office of Education (EOE), including the Department of Elementary and Secondary Education (DESE) and the Department of Early Education and Care, with many collaborative, systems-building efforts underway. Other linkages to promote better systems beyond EOHHS include the Department of Public Safety, the Department of Housing and Community Development, and others. DEEC is responsible for the administration of all public and private early education and care programs and services in the state.

The Director of the Bureau of Family Health and Nutrition, who is the Title V administrator, holds a senior leadership position within MDPH and reports directly to the Commissioner of Public Health. He is integrally involved in collaborations and decision-making regarding both internal and cross-agency program development that affects MCH populations. He also collaborates with and seeks input from professional organizations, consumer representatives, advocacy groups, and community providers, as well as participating on multiple committees and taskforces addressing MCH issues in the state.



Our MCH Priorities and State Performance Measures clearly reflect the systems development and partnership philosophies articulated above and have been developed with the Massachusetts health care system context in mind.

There are no statutes in Massachusetts directly related to the establishment or operation of a Title V program as defined by MCHB/HRSA. There are, however, a myriad of statutes and regulations that address issues related to MCH and CSHCN. Many of these have been referenced in the Needs Assessment section and in the NPM/SPM annual report narratives. Recent examples of statutes and regulations related to MCH priorities, all of which involved leadership or significant input by Title V, include the junior operator law, primary child passenger restraint law for children under age 14; expanded birth defects monitoring and surveillance regulations, expanded newborn blood screening regulations, expanded public health practice for dental hygienists, breastfeeding in public places, required periodic measurement of BMI in schools, reducing bullying in schools, safe driving legislation that bans texting while driving for all drivers and cell phone-use by junior operators, and school-age sports concussion prevention.

The Massachusetts Title V program has historically been a leader in the development of a statewide system of services that reflect the principles of comprehensive, community-based, family-centered care for CSHCN. An extensive review of where we stand on the MCHB-defined four constructs by which to assess the service system for CSHCN and state involvement with it is included in our Five-Year Needs Assessment (Section 2F3.4). A stand-alone version of the constructs section, with annual updates, will be provided here in the interval until the next 5-year needs assessment.

***An attachment is included in this section.***

### **C. Organizational Structure**

The Bureau of Family Health and Nutrition (BFHN), in the Massachusetts Department of Public Health (MDPH) is the Title V Agency for the Commonwealth of Massachusetts. The BFHN is a free-standing unit reporting directly to the Commissioner of Public Health. A sister Bureau within MDCH, the Bureau of Community Health Access and Promotion (BCHAP), includes a number of MCH-related programs and initiatives. Staff of both Bureaus work closely together on many initiatives, including the 5-Year Needs Assessment, priority setting, and this annual application and report. See Section III. B. (Agency Capacity) for additional information about this organizational structure.

The Department of Public Health is part of the Executive Office of Health and Human Services. (See the organizational charts in the attachment to this Part III, Section C. (Organization Structure)). Central functions such as legal, human resources, and information technology have been centralized at the EOHHS level. JudyAnn Bigby, M.D. is the Secretary of Health and Human Services under Governor Deval Patrick and John Auerbach is Commissioner of Public Health.

Ron Benham currently serves as both the Title V director and state CSHCN contact person. We plan to recruit and hire a new CSHCN director management position; this process has been delayed at least until the Fall due to Secretariat-wide freezes on new management hiring or vacancy replacements. Karin Downs, Assistant DPECSHN Director for Clinical Affairs, serves as the state Title V MCH Director.

The Bureau of Family Health and Nutrition is committed to protecting and improving the health status, functional status, and quality of life of Massachusetts residents across the lifespan, with special focus on at-risk populations, low-income groups, and cultural and linguistic minorities. The Bureau includes the following divisions and offices:

- Division for Perinatal, Early Childhood, and Special Health Needs (DPECSHN)
- Nutrition Division (including the state WIC program)
- Office of Data Translation

-- Massachusetts Birth Defects Center

The Bureau of Community Health Access and Promotion includes:

- Division of Primary Care and Health Access (DPCHA)  
(including School Health, Family Planning, Oral Health, School-Based Health Centers, Teen Pregnancy Prevention, Adolescent Health, and Office of Primary Care)
- Division of Prevention and Wellness (DPW)  
(including Women's Health, Men's Health, Diabetes, Nutrition/Physical Activity, Asthma)
- Division of Violence and Injury Prevention (DVIP)
- Office of Statistics and Evaluation

Both Bureaus has internal support centers for administration, policy, and planning.

A reorganization within BFHN is under active consideration, but not finalized. Under this plan, DPECSHN would be split into three smaller divisions: Perinatal and Early Childhood; Early Intervention; and Children and Youth with Special Health Needs. This would create more manageable units that would each report to the Bureau Director.

MDPH has been designated by the Governor as the lead agency for the new evidence-based home visiting initiative created through the Affordable Care Act and BFHN, as the state Title V agency, is leading the Commonwealth's initial application, needs assessment, and state plan development processes. An active interagency Home Visiting Task Force has been convened for this purpose. Both BFHN and a sister agency (EEC) are budgeting for additional staff resources with the new home visiting funds, along with external consultant support for the needs assessment and state plan development process (including evaluation). Organizationally, the new projects are expected to be managed through the proposed Perinatal and Early Childhood division mentioned above.

For Block Grant purposes, all MCH services and initiatives are reported in an integrated manner and staff and leadership of BFHN, BCHAP, and other key MDPH Bureaus and programs continue to work closely together to address common issues and cross-cutting initiatives. The resulting integration of needs assessment, planning, program implementation, and evaluation can be seen throughout our 5-year needs assessment and the program activities and accomplishments described in this Application and Annual Report. The BFHN retains overall responsibility for the Title V program and funds, including final submission of the 5-Year Needs Assessment, Application and Annual Report; and sign-off on the MCHS Block Grant budget.

In addition to its central office, the Bureau maintains staff in the five MDPH regional offices locations. Many of these staff, such as FOR Families home visitors, and care coordinators for CSHCN provide direct services to individuals and families. Others work closely with BFCH programs, providing regional and local training and technical assistance, information and referral to services, coordination of services for families, performance monitoring, and other capacity building activities; these include the regional Early Intervention specialists. Among the staff are the Family TIES parent staff.

Regional Offices report through a department level Office of Local Health Services, under the oversight of a Senior Policy Advisor to the Commissioner. BFHN regional staff work collaboratively with the Department's regional managers and the related Office of Health Communities, under whose leadership MDPH works with communities to build and enhance public health infrastructure at local and regional levels and to develop systems of care that are responsive to the diverse needs of community members. For example, the Department is working very actively to create and sustain more regional local health units. Without a functioning county system, individual local boards of health exist at the city/town level (351).

***An attachment is included in this section.***

## **D. Other MCH Capacity**

As of June, 2010, approximately 224 full-time equivalent (FTEs) employees throughout the Department work on Title V Partnership programs; of these 114 FTEs are paid from Title V Partnership funds. The rest are paid from other MCH-related federal accounts. Approximately 23 of the total are usually based in the MDPH regional offices or other off-site locations (such as physician practices); the others work out of our central office in downtown Boston. These staff include wide range of disciplines and professional expertise, including an extensive staff of epidemiologists and data specialists devoted to MCH-related activities.

The number of FTE staff paid directly by the MCH Block Grant is expected to be 91 for FY11 (down slightly from FY09), and they now represent approximately 41% of all FTEs and 80% of all Partnership FTEs. During FY09, state fiscal rules regarding payroll positions on MDPH state accounts were relaxed and a number of staff working on MCH-related programs were transferred from the MCH Block Grant (and other federal accounts) to various state accounts. This has reduced our reliance on federally-funded positions without affecting the total workforce. It also saves us money, as fringe benefits and indirect costs for state account positions are paid from a separate reserve rather than from the payroll account, as federal positions are charged. In addition, on-going efforts to convert all consultant positions (which do not come with benefits) to regular payroll positions have enabled us to transfer a number of consultants into equivalent positions. This has provided better benefits and employment rights to the individuals and helps in retaining these valuable staff. The most recent change to staffing arrangements has been the consolidation of all EOHHS Information Technology staff and functions at the Secretariat level and the creation of a centralized new state account into which state funds previously in MDPH accounts were transferred through the budget process. For federally funded positions (of which there were 6 on the MCH Block Grant), the staff are now on the central state IT account but the department is charged for their costs through a chargeback mechanism. Thus the FTE count at MDPH is lower, although the staff are still working on the same related functions and the costs are accounted for differently.

Brief biographical sketches of the Title V Partnership senior management team are available in the Word document attached to this section. The biographies are the first section of the Attachment.

Key data capacity elements are summarized in Health Systems Capacity Indicator #09. (See Form 19.)

Not counting short-term positions and service on task forces, the Bureau employs over 16 parents who represent approximately 12 full-time equivalent staff. This includes EI Parent Leadership Project, Family TIES, and Universal Newborn Hearing Screening staff. One part-time position has remained vacant for two years and may remain so due to funding limitations. Flexibility in both work hours and locations has enabled us to hire and retain this large group of committed and skilled people. Family TIES Coordinators work out of the regional offices and are the voices behind the statewide 1-800 number for families with children with special health care needs. More information on our extensive parent involvement initiatives is provided in Section II.B. above in our discussion of "Constructs of a Service System for CSYSHCN," as well as throughout our reporting on Performance Measures. The multiple types of roles that they carry out are also displayed visually in a Figure included in the Word document attached to this Section.

Family members continue to report a strong commitment from the CYSHCN Program to create opportunities for involvement. Stipends for participation are always given. Families receive a high level of training and mentoring that facilitates participation. The CYSHCN Program encourages and supports family members to attend local, statewide, and national conferences and meetings. Family members of CYSHCN are valued and sought for their experience and expertise as parents. However, families still identify the need to increase diversity of families involved in Title V

activities.

#### Form 13 - "Characteristics Documenting Family Participation in CYSHCN Programs"

In scoring Form 13 for this application, families reported satisfaction with the opportunities for involvement and partnership; scoring remained the same at 16 (of a total possible of 18). They noted continued improvement in attracting and involving more bi-lingual, bi-cultural parents to work with us, giving us a score of "2+." They expressed feeling increased confidence that we are on a path to meet the needs of families from diverse cultural backgrounds. As always, they remind the state Title V program that although we are doing an excellent job of involving families there are always ways to do even more.

***An attachment is included in this section.***

### **E. State Agency Coordination**

The BFCH views both intra-agency and interagency coordination as being essential to the achievement of its mission on behalf of improved maternal and child health. The Bureau maintains and promotes extensive networking and systems development relationships at the national, state, and local levels. These relationships include provider, non-profit, and other organizations; advocacy groups; coalitions, task forces, and community groups; other state agencies and governmental groups; universities and colleges; and internal MDPH working groups.

The capacity to work with, influence, and promote comprehensive provider-based service systems continues to include not just hospitals and community-based providers such as community health centers, but the private providers, tertiary and specialty hospitals, professional associations such as AAP, ACOG, and the Massachusetts Medical Society, payers and insurers, universities, schools of public health, and many others.

Many of the activities carried out through these relationships are noted throughout the Annual Report and Annual Plan sections of this document as they related to specific performance measures or Title V priorities. The Bureau works with a broad base of constituency groups many of whom relate to specific populations or issues. The extensive Massachusetts Title V collaborative relationships and network of resources, categorized by type of agency/organization and including both public sector agencies and private sector organizations and institutions, is available in the Word document that is the Attachment to this Section, "Massachusetts Federal-State MCH Partnership: Key MCH-Related Relationships."

#### Collaboration with EOHHS and Medicaid

BFHN, as the Title V agency, also promotes collaboration and coordination across most programs and agencies within EOHHS. Through multiple work and advisory groups, the agency supports the wide breadth of needs of the MCH population. This cross-collaboration becomes more important with increasing understanding of the needs across the lifespan of the MCH population, including the impact of economic security, the built environment and the importance of paternal health and involvement in child development. The key EOHHS sister agency relationships to promote MCH include MassHealth (the Massachusetts Medicaid Program, including EPSDT and SCHIP); the departments of Children and Families, Mental Health, Developmental Services (previously Mental Retardation), Transitional Assistance (the state TANF agency), Youth Services, and Elder Affairs (which oversees long-term care for all ages); Health Care Finance and Policy; Massachusetts Rehabilitation Commission, Mass. Commission for the Blind, Mass. Commission for the Deaf and Hard of Hearing, and the Office of Refugees and Immigrants. These agencies include such key services as SSI, vocational rehabilitation, traumatic brain injury services, developmental disabilities programs, and autism services for those over age 3. BFHN also participates in several Secretariat-wide efforts to assure better and more comprehensive systems of care, including the Children's Behavioral Health Initiative, the Patient-Centered Medical Home Initiative, and two complementary SAMHSA grants (MassLAUNCH

located at BFHN) and MYCHILD at EOHHS).

The Bureau continues a history of working with the various components of the Office of Medicaid, within EOHHS, even as Medicaid (MassHealth) has undergone numerous reorganizations and realignments over the last several years. We continue to work to assure that there is a comprehensive and integrative approach in the outreach, enrollment and services provided to MassHealth, including CommonHealth for CYSHCN, recipients. This has included involvement in waiver development, MMIS purchasing, enrollment functions and development of standards of care and quality initiatives. The Bureau strives to maximize Federal reimbursement mechanisms including FMAP and Municipal Medicaid opportunities. One of the key collaborative initiatives over the last five years was the Massachusetts Special Commission on After School and Out of School Time, a legislative commission that produced a comprehensive report and proposal for the Commonwealth to better address after school and extended learning needs in 2008.

Another is the on-going implementation of the EOHHS response to the Rosie D class action lawsuit. As a result of the settlement of the lawsuit, universal behavioral screening for children on Medicaid at each EPSDT visit was implemented in January, 2008, utilizing an approved screening tool. This response has evolved into the Children's Behavioral Health Initiative, (CBHI), an EOHHS interagency initiative that will improve how Massachusetts oversees, provides and coordinates children's behavioral health services. It will help ensure the early identification and screening of behavioral health issues in children, and expand and integrate Massachusetts state services into a comprehensive, community-based system of care, to ensure that all families and their children, not just those on Medicaid, with significant behavioral, emotional and mental health needs obtain the services necessary for success in home, school and community. The Title V Director and other DPH staff actively participate in the CBHI and the development and implementation of this critical policy initiative; the Title V Director serves on the both the Executive and Implementation Committees.

The BFHN has also had on-going discussions with MassHealth related to early intervention services, autism services for children birth to 3, and the need for subacute and respite services for children with significant medically complex health. These have led to some major policy and services changes, including the agreement for MassHealth to reimburse for the services of Early Intervention developmental educators for its enrollees; previously MDPH had to cover these services for MassHealth clients; the shift makes the services eligible for FMAP.

Massachusetts now has a legislative mandate for MassHealth to establish a medical home demonstration project including: a restructured payment system to support primary care practices using a medical home model; support for practices in their transformation; and agreement to work with other Medicaid payers and other stakeholders. Under the legislation a Medical Home is "a community-based primary care setting which provides and coordinates high quality, planned, patient and family-centered health promotion, acute illness care, and chronic condition management." The Massachusetts Patient-Centered Medical Home (PCMH) Initiative Council (PIC) was created to advise EOHHS in its role as convener and overseer of the PCMH Initiative. The Council is tasked to recommend a design, including payment models and practice transformation strategies, to support a large-scale roll-out of public-private multi-payer medical homes across the Commonwealth. Membership on the council includes payors, purchasers, clinicians, and researchers to support all levels of redesign. Redesign includes practice redesign, consumer engagement, and clinical care management and care coordination. Title V participates in this process, emphasizing our experience with implementing medical home for CYSHCN and the need to include children and families in program development going forward.

Another collaboration of note is our active participation on Birth to Three Task Force formed by EEC. DPH staff sits on all Task Force committees to represent health issues. The Task Force itself is a subsection of the Governor's School Readiness Project, a major policy initiative.

Beyond EOHHS, Title V has strong linkages with the Executive Office of Education (EOE), which

includes the Department of Elementary and Secondary Education (DESE) and the Department of Early Education and Care, with many collaborative, systems-building efforts underway. Other linkages to promote better systems beyond EOHHS include the Department of Public Safety, the Department of Housing and Community Development, and others.

Massachusetts is fortunate to have a large number of MCHB grants in the state in addition to the MCHB and SSDI. Six have been awarded to MDPH and the others, which include MCH Public Health training programs (2), numerous other training grants, multiple research grants, TBI implementation and advocacy, LEND (2), Federal Healthy Start (2), national Children and Adolescents Injury and Violence Prevention Resource Center, Family/Professional Partnership, etc. at over 16 institutions and agencies. We work closely and collaboratively with many of these projects and benefit from their work and knowledge.

In the specific area of CYSHCN, Title V collaborates with a number of other state and federally funded agencies and organizations to address the needs of individuals with developmental disabilities. The Director of Family Initiatives (DFI) represents the Department as a council member on the Massachusetts Developmental Disability Council (MDDC). As a Council member, she provides information about MDPH resources, reviews grants and assists families to access Consumer Empowerment Funds. In addition, the Director of Family Initiatives sits on the Advisory Board of the Institute for Community Inclusion (ICI), one of Massachusetts' two University Centers for Excellence in Developmental Disabilities. ICI works across the lifespan to develop and disseminate programs and resources. The DFI provides the public health and the family perspective on the need for and availability and efficacy of these programs, resources and community based supports for individuals with developmental disabilities. The DFI works with both Massachusetts LEND programs to identify opportunities for collaboration and resource sharing. She participates on an interagency working group of liaisons from all EOHHS agencies working to make state and federally-funded supports for families of CYSHCN more flexible and family directed.

***An attachment is included in this section.***

## **F. Health Systems Capacity Indicators**

### **Introduction**

The Health Systems Capacity Indicators are all actively used by Massachusetts to track the health of the Commonwealth and to inform public health policy and practice. These indicators are part of a much larger set of indicators that are routinely reviewed and that help shape efforts to reduce health disparities and target both programs and other systems capacity resources appropriately. Analyses by race, ethnicity, age, and other characteristics -- at both the state and local levels -- are key components of our approach. A particular emphasis is working with communities at greatest risk to develop their own capacity to use data to create, implement, and monitor strategic plans. These indicators are also among the risk indicators that we use for tracking and early identification and for needs assessments for procuring community-based services. Massachusetts has been a leader in the development of programs based on data analysis and on the development of innovative systems of care. We have dedicated epidemiology resources and provide leadership using surveillance data, expanding data utilization and applying data to public health policy. Our systems capacity is excellent in the areas of health care resources, Medicaid and other public benefits, and a national model universal health insurance system. We have a number of strong data system linkages that promote improvements in systems capacity, some of them unique (e.g. PELL).

Among our challenges are a better understanding of how

**Health Systems Capacity Indicator 01:** *The rate of children hospitalized for asthma (ICD-9 Codes: 493.0 -493.9) per 10,000 children less than five years of age.*

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	60.4	69.6	72.1	82.2	82
Numerator	2415	2699	2718	3153	
Denominator	400113	387863	376848	383568	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

#### **Notes - 2009**

Hospitalization data for 2009 are not yet available from the Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

#### **Notes - 2008**

Hospitalization data are from Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy, 2008. The 2008 denominator is provided by the Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

The numerator includes hospitalizations where asthma was either the primary diagnosis or a contributing cause.

#### **Notes - 2007**

Hospitalization data are from Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy, 2007. The 2007 denominator is provided by the Bureau of Health Information, Statistics, Research and Evaluation.

The numerator includes hospitalizations where asthma was either the primary diagnosis or a contributing cause.

#### **Narrative:**

Asthma is a significant public health challenge in Massachusetts and an area where we continue to explore methods to collect and analyze data more effectively. The hospital discharge database remains in continuous change and improvement, with Observation Discharges and Emergency Room visits being added in recent years, but not for every data year. The multiple possibilities for capturing ICD codes at various levels (primary diagnosis, secondary, etc.) make these data more challenging to interpret over time than vital statistics. Our Asthma Planning grant is helping promote closer analyses. In addition, changes in medical care practice (and hospital/insurance policies) may create changes in where similar cases are recorded from year to year, making trend analysis complex.

The Asthma Prevention and Control Program works to improve the quality of life for all Massachusetts residents with asthma and to reduce disparities in asthma outcomes. Funded by CDC grants to address asthma from a public health perspective, and implemented in close collaboration with the broad-based Massachusetts Asthma Advocacy Partnership, the Program's activities include: expanding asthma surveillance, broadening statewide and regional asthma partnerships for coordinating action on asthma, and improving asthma management and control. Included in the Program's activities are efforts to reduce exposure to asthma triggers and irritants in homes, licensed childcare centers, schools, workplaces and senior centers. Another Program focus is researching effective interventions to reduce asthma disparities. Through its Asthma Disparities Initiative, the Program supports pilot projects in the regions most affected by asthma.

both to improve clinical care and to develop and coordinate asthma coalitions. Among the program's data-driven activities have been release of an asthma burden document with comprehensive data about asthma in Massachusetts in April 2009 and a 5-year Strategic Plan for Asthma 2009 -- 2014 that includes specific action steps to improve asthma for young children.

The School Health Unit also continues to collaborate with the Bureau of Environmental Health to conduct annual asthma surveillance based on information reported to school nurses.

The importance of this health systems capacity indicator -- and the data showing the Commonwealth has much room for improvement in this critical measure of health disparities -- has resulted in a targeted variant of it being selected as one of our new State Performance Measures, based on our 5-Year Needs Assessment and identification of priority need areas -- the hospitalization rate per 100,000 among Black, non-Hispanic and Hispanic children ages 0 -- 4.

**Health Systems Capacity Indicator 02:** *The percent Medicaid enrollees whose age is less than one year during the reporting year who received at least one initial periodic screen.*

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	100.0	100.0	100.0	100.0	100.0
Numerator	33012	36022	37126	37458	41444
Denominator	33012	36022	37126	37458	41444
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Final

**Notes - 2009**

Data Source: Massachusetts Division of Medical Assistance (state Medicaid agency), Medicaid Management Information System. Form HCFA 416: Annual EPSDT Participation Report for period October 1, 2008 to September 30, 2009.

**Notes - 2008**

Data Source: Massachusetts Division of Medical Assistance (state Medicaid agency), Medicaid Management Information System. Form HCFA 416: Annual EPSDT Participation Report for period October 1, 2007 to September 30, 2008.

**Notes - 2007**

Data Source: Massachusetts Division of Medical Assistance (state Medicaid agency), Medicaid Management Information System. Form HCFA 416: Annual EPSDT Participation Report for period October 1, 2006 to September 30, 2007.

**Narrative:**

Based on Medicaid EPSDT data, all enrolled infants are receiving some periodic screening. However, data on the consistency and quality of the screening, and the thoroughness of referrals, follow-up, and treatment are not readily available. A number of our programs (e.g. MCH home visiting programs, Early Intervention, WIC, etc.) work to assure that all infants, including those on Medicaid, receive comprehensive screening, assessment, and referrals. This focus will expand as we continue to address unmet needs related to pediatric health and medical home initiatives



for all children. Title V meets with MassHealth personnel and continues to discuss periodic screening and EPSDT data timeliness and quality across the age span.

The EOHHS Children's Behavior Health Initiative (CBHI) has been established to implement the court order in the Rosie D. lawsuit that requires universal behavioral screening at each EPSDT visit. CBHI requires Managed Care Organizations and primary care providers under contract to MassHealth to offer to screen MassHealth-enrolled children and youth aged <21 years (including infants) with one of eight MassHealth-approved standardized behavioral health screening instruments during preventive care Early and Periodic Screening, Diagnosis and Treatment (EPSDT) and Preventive Pediatric Healthcare Screening and Diagnosis (PPHSD) visits. The Title V Director is a member of the CBHI Implementation Coordinating team. The major provisions of the order include: improved education and outreach to MassHealth members, providers, members of the public, and private and state agency staff who come into contact with MassHealth members about EPSDT services; implementation of standardized behavioral-health assessments as part of EPSDT "well-child" visits; improved and standardized behavioral-health assessments for eligible members who use behavioral-health services; the development of an information-technology system to track assessments, treatment planning, and treatment delivery; and a requirement to seek federal approval to cover several new or improved community-based services. MassHealth continues to pursue quality improvement initiatives to increase member and provider awareness of, and provider compliance with, the screening requirement.

**Health Systems Capacity Indicator 03:** *The percent State Childrens Health Insurance Program (SCHIP) enrollees whose age is less than one year during the reporting year who received at least one periodic screen.*

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	0.0	0.0	0.0	0.0	0.0
Numerator	0	0	0	0	0
Denominator	1	1	1	1	1
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Final

**Notes - 2009**

Indicator is NOT APPLICABLE

All infants under 200% FPL are eligible for Medicaid rather than SCHIP.

**Notes - 2008**

Indicator is NOT APPLICABLE

All infants under 200% FPL are eligible for Medicaid rather than SCHIP.

**Notes - 2007**

Indicator is NOT APPLICABLE

All infants under 200% FPL are eligible for Medicaid rather than SCHIP.

**Narrative:**

HSCI #03 is not specifically applicable to Massachusetts as all "SCHIP" infants are enrolled in Medicaid and are therefore reflected in HSCI #02. All infants under 200% FPL are eligible for Medicaid rather than SCHIP. See discussion under HSCI #02 for activities and issues.

**Health Systems Capacity Indicator 04:** *The percent of women (15 through 44) with a live birth during the reporting year whose observed to expected prenatal visits are greater than or equal to 80 percent on the Kotelchuck Index.*

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Indicator	83.0	82.1	81.6	80.3	80.3
Numerator	63565	63568	63386	61566	
Denominator	76573	77391	77646	76685	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

**Notes - 2009**

2009 birth data are not available. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

**Notes - 2008**

Birth data are from MDPH, Vital Records for calendar year 2008 (the most recent year available). The Kotelchuck Index is calculated and reported routinely by the Department and is available in MassCHIP, which is the source for the 2008 data.

**Notes - 2007**

Birth data are from MDPH, Vital Records for calendar year 2007. The Kotelchuck Index is calculated and reported routinely by the Department and is available in MassCHIP, which is the source for the 2007 data.

**Narrative:**

This indicator is affected by women entering prenatal care after the first trimester. Late entry into care ultimately results in inadequate care scores. MA PRAMS 2007-2008 data show that about 11% of women reported not receiving prenatal care as soon as they had wanted. Reasons given often related to the health care system: not being able to get an appointment sooner was the most common (8.0%) and doctor or health plan won't start care (5.2%) was the third most common cause of delay. This supports anecdotal evidence that some physicians counsel women not to come in for prenatal visits until after the 12th week, particularly if the woman has had a prior birth with good outcomes.

See also NPM # 18 and SPM # 09 for additional information about numerous activities related to the improvement of this HSCI. A number of activities and data analyses are underway, including PRAMS and PELL, as we continue to seek improvements in prenatal care. See also HSCI #05B and #05C and the other sections of this application referenced above for more information. A few key items are listed below:

Prenatal enrollment in WIC in the 1st trimester has been incorporated as an outcome measure into WIC's Performance Management System. All local programs establish individual goals for improvement in early prenatal enrollment as part of a larger system of performance management

focused on improved health outcomes and quality services.

IPI analysis using PELL data found that 4.6% of Hispanic women had short IPI (women identified as pregnant again within 6 months postpartum), a figure was 15% lower than the previous year's figure of 5.5%. DPH will continue to monitor this finding about Hispanic women with IPI less than 6 months in depth, examine 2008 data when available, and try to encourage programs to use IPI for quality improvement.

PRAMS 2007-2008 data were also used for further analysis of demographics and reasons for late entry to care. Substantial differences are evident by race/Hispanic ethnicity, age, education, poverty level, and Medicaid as a prenatal care payment source. Argument has been made that women are not getting early into care because they may not know that they are pregnant until after the first trimester. However, PRAMS data show that only 4% of women were unaware of the pregnancy until after the first trimester. Whether or not the woman reports trying to become pregnant was a more powerful indicator of adequacy of prenatal care, with those who reported that they had not been trying to become pregnant more likely to have received inadequate or no care than those reporting that they had been trying to become pregnant.

These analyses may provide guidance on what actions would be most effective in changing physician and health care provider behavior to assure more prompt appointment scheduling -- especially for women at the highest potential risk of poor birth outcomes.

**Health Systems Capacity Indicator 07A:** *Percent of potentially Medicaid-eligible children who have received a service paid by the Medicaid Program.*

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	93.6	96.7	96.7	97.3	98.2
Numerator	431448	457592		505517	626211
Denominator	460826	473158		519426	637639
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional

**Notes - 2009**

Data Sources: The numerator is the number of children aged 0 - 18 ever enrolled in Medicaid (MassHealth) during FY 2009; all children enrolled are assumed to have had at least one service paid for by the program. The denominator is made up of two components. The first is the total number of children aged 0 - 18 enrolled in MassHealth during that period. The second is an estimate of children not enrolled in Medicaid who might be eligible for it, defined as the estimated number of children at or below 200% FPL (26% of 1,627,928) who are reported as uninsured through state surveys (2.7% of those under 150%, used as closest and conservative proxy). These calculations yield an estimate of only 11,428 children possibly eligible for Medicaid but not enrolled during FY2009.

Medicaid enrollment data: MassHealth. Unduplicated number of children (defined as under age 19) ever enrolled in the Medicaid program in FFY 2009, as reported by the state into the CHIP Statistical Enrollment Data System (SEDS). The total includes children served under Title XIX (non-CHIP) (483,167), Medicaid Expansion (62,807), and the Separate Child Health Program (80,237).

% of Children Uninsured estimate: Massachusetts Division of Health Care Finance and Policy, "Health Insurance Coverage and Access to Care in Massachusetts: Detailed Tabulations Based on the 2009 Massachusetts Health Insurance Survey." November 2009.  
Estimate of % of children below 200% of poverty: Annie E. Casey Foundation. KidsCount Data Center. Analysis of data from the 2008 American Community Survey.

#### **Notes - 2008**

Data Sources: The numerator is the number of children aged 0 - 18 ever enrolled in Medicaid (MassHealth) during FY 2008; all children enrolled are assumed to have had at least one service paid for by the program. The denominator is made up of two components. The first is the total number of children aged 0 - 18 enrolled in MassHealth during that period. The second is an estimate of children not enrolled in Medicaid who might be eligible for it, defined as the estimated number of children at or below 200% FPL (26% of 1,621,137) who are reported as uninsured through state surveys (3.3% of those under 150%, used as closest and conservative proxy). These calculations yield an estimate of 13,909 children possibly eligible for Medicaid but not enrolled during FY2008. Medicaid enrollment data: HHS, CMS, "FY2008 Medicaid Children Annual Enrollment Report." Data are the unduplicated number of children (defined as under age 19) ever enrolled in the Medicaid program in FY 2008, as reported by the state into the CHIP Statistical Enrollment Data System (SEDS). [www.cms.hhs.gov/NationalCHIPPolicy/CHIPER](http://www.cms.hhs.gov/NationalCHIPPolicy/CHIPER).  
% of children Uninsured estimate: Massachusetts Division of Health Care Finance and Policy, "Health Insurance Coverage in Massachusetts: Estimates from the 2008 Massachusetts Health Insurance Survey." Updated March 2009.  
Estimate of % of children below 200% of poverty: Annie E. Casey Foundation. KidsCount Data Center. Analysis of data from the 2007 American Community Survey.

#### **Notes - 2007**

Updated 2007 enrollment data for Medicaid are not available. We have estimated a similar rate as for 2006, which is probably an underestimate given the aggressive outreach and enrollment activities tied to Health Care Reform that began during FY07.

#### **Narrative:**

See Notes to HSCI for details about data sources and calculation of estimated rates.

With Medicaid eligibility for children up to 300% of the FPL and increased public information to inform families both to the benefits they are now eligible for and to their responsibilities under health care (e.g. purchasing insurance under various subsidies), the rate of Medicaid-eligible children actually using the program gets closer to 100%, as there are very few if any children under 200% of poverty that are neither on Medicaid nor without one of the new insurance coverage options in place. The HCFP survey has become an annual one and provides even more information about who is uninsured and how various aspects of health care reform affect children and their health care utilization. Of particular interest is whether gaps or changes in insurance coverage over the year negatively impact the duration and completeness of health care services to children.

The majority of children within both Medicaid and SCHIP are now within one of 4 managed care plans which have expanded to provide statewide coverage, thus not requiring children to change practice sites. BFHN continues to work with MassHealth and the Health Connector to assure children and families are enrolled in appropriate health coverage plans and to monitor effects of recertification and possible disenrollment due to premium nonpayments. Effects on the current programs, such as EI, continue to be reviewed and programs modified as indicated.

Early Intervention benefits under Medicaid were significantly expanded effective 7/1/09 with the addition of Medicaid coverage for developmental specialists. All professional disciplines are now covered by MassHealth.

EIPP has negotiated with the Massachusetts Managed Care Organizations (MCOs) to provide reimbursement for home visits and groups. MCOs have identified CPT codes and reimbursement rates for home visiting services to ensure that low-income women and women living in communities with poorer birth outcomes are connected with healthcare providers early in pregnancy. Two of the four MCOs are regularly reimbursing for home-based nursing and social work interventions for high risk pregnant and parenting families in selected communities. A third MCO is still considering whether to agree to pay for home-based services, and a fourth MCO has declined to participate in this program (since they have very few members in the communities served by EIPP). The two MCOs are currently negotiating to pay for group services to be provided by EIPP which would specifically focus on addressing maternal depression by decreasing isolation, and improve parenting skills. One of these MCOs has identified addressing maternal depression a priority for their members, and actively collaborates with bureau staff to support legislation that will mandate screening in multiple settings across the lifespan.

**Health Systems Capacity Indicator 07B:** *The percent of EPSDT eligible children aged 6 through 9 years who have received any dental services during the year.*

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	50.3	51.9	56.4	61.0	63.6
Numerator	45318	49648	54817	60452	67460
Denominator	90075	95723	97160	99037	106132
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Final

**Notes - 2009**

Data Source: Massachusetts Division of Medical Assistance (state Medicaid agency), Medicaid Management Information System. Form HCFA 416: Annual EPSDT Participation Report for period October 1, 2008 to September 30, 2009.

**Notes - 2008**

Data Source: Massachusetts Division of Medical Assistance (state Medicaid agency), Medicaid Management Information System. Form HCFA 416: Annual EPSDT Participation Report for period October 1, 2007 to September 30, 2008.

**Notes - 2007**

Data Source: Massachusetts Division of Medical Assistance (state Medicaid agency), Medicaid Management Information System. Form HCFA 416: Annual EPSDT Participation Report for period October 1, 2006 to September 30, 2007.

The calculations used DMA changed in 2003, resulting in a new baseline level. Since then, there has been a modest but steady increase each year in the percentage of children receiving preventive dental services. Improvements in MassHealth dental care reimbursement rates for services to children and other systems improvements are expected to cause continued improvement in this indicator. Massachusetts has a related State Performance Measure that

addresses the use of preventive Medicaid dental services for children ages 3 – 18; See SPM # 04 for more information on changes in the MassHealth system and our involvement in them.

**Narrative:**

MassHealth benefits include dental care for children. Utilization rates have increased due to number of positive changes: improved payment rates, increased recruitment of dentists, increased pediatric dental services available at community health centers, and increased promotion of the importance of dental care through a number of initiatives. An on-going issue for children on MassHealth is availability given the number of dentists who accept MassHealth and the uneven geographic distribution of dentists across the state.

We work closely with Medicaid, dental professionals, schools, community-based health care providers, and advocates in a variety of ways to improve oral health services and preventive oral health measures (including fluoridation) for all children. Efforts include direct care and enabling services, population-based activities, and a great deal of infrastructure and capacity building. These efforts have been enhanced through competitively awarded HRSA/MCHB grants targeted at oral health workforce development and at improved systems for oral healthcare access for children.

The Office of Oral Health (OOH) has worked with MassHealth to develop a statewide oral health prevention plan to increase the number of underserved and unserved children receiving preventive services in school settings and is collaborating with interested dental and health professionals in developing school-based oral health programs (education, screenings, sealants and fluoride) and increasing the number of MassHealth children served in them. In FY10, the OOH began implementing statewide expansion of school-based oral health prevention (sealant) programs statewide focusing on schools with greater than 50% free and reduced school lunch participation and in communities with greater than 10,000 MassHealth children

OOH is also working with Mass Health and the MCAAP to implement the recommendation of each child having an oral health assessment at 1 year. MassHealth now reimburses pediatric health providers to apply fluoride varnish during well-child visits. OOH developed a tool kit and is conducting trainings of medical providers focusing on community health centers.

State legislation has created a public health dental hygienist category to work without the supervision of a dentist. Dental hygienists can now bill MassHealth directly, increasing the number of low income children receiving sealants and fluoride.

**Health Systems Capacity Indicator 08:** *The percent of State SSI beneficiaries less than 16 years old receiving rehabilitative services from the State Children with Special Health Care Needs (CSHCN) Program.*

Health Systems Capacity Indicators Forms for HSCI 01 through 04, 07 & 08 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	100.0	100.0	100.0	100.0	100.0
Numerator	18150	19129	20247	20895	21880
Denominator	18150	19129	20247	20895	21880
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving					

average cannot be applied.					
Is the Data Provisional or Final?				Final	Final

#### **Notes - 2009**

All SSI beneficiaries in Massachusetts are automatically enrolled in Medicaid. The breadth of the Medicaid benefit package in the state leaves Title V with no residual responsibilities because "the extent medical assistance for such services is not provided by Medicaid" is zero. To indicate the degree to which such services are available to the SSI population, the numerator is the same as the number of children on SSI.

The data are from the Social Security Administration, Supplemental Security Record (Characteristic Extract Record format) and include children under age 18 and are for children receiving benefits as of December 2009.

#### **Notes - 2008**

All SSI beneficiaries in Massachusetts are automatically enrolled in Medicaid. The breadth of the Medicaid benefit package in the state leaves Title V with no residual responsibilities because "the extent medical assistance for such services is not provided by Medicaid" is zero. To indicate the degree to which such services are available to the SSI population, the numerator is the same as the number of children on SSI.

The data are from the Social Security Administration, Supplemental Security Record (Characteristic Extract Record format) and include children under age 18 and are for children receiving benefits as of December 2008.

#### **Notes - 2007**

All SSI beneficiaries in Massachusetts are automatically enrolled in Medicaid. The breadth of the Medicaid benefit package in the state leaves Title V with no residual responsibilities because "the extent medical assistance for such services is not provided by Medicaid" is zero. To indicate the degree to which such services are available to the SSI population, the numerator is the same as the number of children on SSI.

The data are from the Social Security Administration, Supplemental Security Record (Characteristic Extract Record format) and include children under age 18 and are for children receiving benefits as of December 2007.

#### **Narrative:**

All state SSI beneficiaries under 16 years old receive rehabilitative services through MassHealth, as all are automatically enrolled in Medicaid. All are also referred to the state Children with Special Health Care Needs program for additional services as needed.

The breadth of the Medicaid benefit package in the state leaves Title V with no residual responsibilities because "the extent medical assistance for such services is not provided by Medicaid" is zero. To indicate the degree to which such services are available to the SSI population, the numerator is the same as the number of children on SSI.

See extensive discussions in Agency Capacity (Part III, Section B. of the Narrative) and under NPMs 2 -- 6 for details about the services and systems that are in place and in development to better meet the needs of SSI beneficiaries, along with all children with special health care needs. The Title V program works very closely with MassHealth (Medicaid) and the Health Connector to assure children and families are enrolled in appropriate health coverage plans and to monitor effects of recertification and possible disenrollment due to premium nonpayments. We also work closely with the Massachusetts Rehabilitation Commission, our other sister human services agencies, the Department of Education, health care providers, and a number of other organizations, as well as with parents and families, to assure that these children and their families receive the services and supports to which they are entitled.

EOHHS Commissioners and Assistant Secretaries continue to focus on how to better integrate programs and services across the multiple health and human services agencies. For Children with Special Health Care Needs, there is a focus on those who have the most complex needs and how to better meets their needs across the life span to minimize transition issues.

The Title V Director serves on the EOHHS Children's Behavior Health Initiative (CBHI) Executive Committee and is a member of the CBHI Implementation Coordinating team. The CBHI an interagency initiative whose mission is to strengthen, expand and integrate Massachusetts services into a comprehensive system of community-based, culturally competent behavioral health and complementary services for all children with serious emotional disturbance and other emotional and behavioral health needs, along with their families.

A key objective of this initiative is to: develop and implement integrated policies regarding early identification, access to behavioral health, assessment of behavioral health needs, service delivery and measurement of outcomes. This group oversees the implementation of the assessment component of the Court Order and is putting in place an enhanced emergency response system and services for severely mentally ill children/adolescents.

#### **Health Systems Capacity Indicator 05A: *Percent of low birth weight (< 2,500 grams)***

<b>INDICATOR #05</b> <i>Comparison of health system capacity indicators for Medicaid, non-Medicaid, and all MCH populations in the State</i>	<b>YEAR</b>	<b>DATA SOURCE</b>	<b>POPULATION</b>		
			<b>MEDICAID</b>	<b>NON-MEDICAID</b>	<b>ALL</b>
Percent of low birth weight (< 2,500 grams)	2008	payment source from birth certificate	8.2	7.6	7.7

#### **Notes - 2011**

Birth data are from MDPH, Vital Records for calendar year 2008 (the most recent year available). The percentages shown differ from those published elsewhere, due to how missing data are handled. The MCHB definition of the denominator is specified as all resident births during the referenced year. In MassCHIP and most Massachusetts publications (such as Massachusetts Births), percentages are reported only for cases where information is known (i.e. the denominator excludes births for which data on the variable are missing). Using the MCHB definition reduces the calculated percentage slightly.

#### **Narrative:**

Low birthweight infants (LBW, weighing less than 2,500 grams) are at increased risk of morbidity and mortality compared with infants of normal weight and are at higher risk of delayed development and poor school achievement later in life. MDPH uses this HSCI to monitor the prevalence of LBW infants by insurance type and to track progress toward achieving the Healthy People 2010 goal of 5% LBW births. The percentage of LBW infants in MA in 2008 was 7.7% overall: 8.2% among the Medicaid population and 7.6% among non-Medicaid women. Maternal risk factors such as smoking, substance use, poor nutrition, low income, lack of education and inadequate prenatal care are associated with LBW; these risk factors are often overrepresented in Medicaid populations. With the full implementation of PRAMS (starting with 2007 births) and ongoing linkages in the population-based Pregnancy to Early Life Longitudinal Data System we have steady access to information on perinatal risk factors associated with adverse birth outcomes including LBW. Findings from such analyses can be used to inform efforts to develop effective, targeted interventions for the prevention of prematurity and low birthweight, both at the



state level and in concert with local areas at particular risk.

See discussion under HSCIs #05B and #05C for updates related to perinatal care and outcomes.

**Health Systems Capacity Indicator 05B:** *Infant deaths per 1,000 live births*

INDICATOR #05 <i>Comparison of health system capacity indicators for Medicaid, non-Medicaid, and all MCH populations in the State</i>	YEAR	DATA SOURCE	POPULATION		
			MEDICAID	NON-MEDICAID	ALL
Infant deaths per 1,000 live births	2008	matching data files	6.3	4.3	4.8

**Notes - 2011**

Data are from MDPH, Vital Records, Births and Linked Birth / Infant Death files. Data are for 2008, the most recent year available. Note that the linked file for 2008 only includes 370 infant deaths, while there were a total of 382 infant deaths in 2008. The calculated rates shown here may therefore differ from those published elsewhere.

**Narrative:**

The Perinatal Data Committee uses the pregnancy to Early Life Longitudinal (PELL) data systems to analyze specific maternal and infant outcomes including transfers between birth hospitals to assess the impact of the revised maternal and newborn hospital licensure regulations on whether women are giving birth at a hospital level appropriate for maternal and newborn care needs. The committee is using baseline birth data gathered prior to the promulgation of the regulations.

Perinatal Periods of Risk (PPOR) analyses are being used for both the state and the city of Springfield as part of the Perinatal Disparity Project activities. Community packets related to teen birth and infant death are disseminated to communities with highest infant mortality and teen birth rates each year. At the state level, excess fetio-infant mortality rates have remained relatively stable over the last 5 years. The opportunity gap between black and white remains significant, with black mothers being 8 times more likely to experience excess of fetal or infant death compared to white mothers. An analysis plan has been developed by the perinatal data review project working group which includes members of the medical community and BFHN staff.

In FY10, the MDPH Medical Director convened a group of DPH staff from Family Health and Nutrition, Substance Abuse, Community Health Access and Promotion, and the Health Information, Statistics, Research and Evaluation to establish a process for reviewing infant deaths statewide, the Review of Infant Mortality (RIM). The purpose of the RIM is to decrease the incidence of preventable infant deaths in Massachusetts. The RIM guiding principles include using an understanding of the causes of and contributors to infant mortality to inform policy and program priorities; complementing work done within the Birth Defects Program and by the Child Fatality Review Program; reviewing infant deaths within the frameworks of the life course perspective and social determinants of health; identifying and addressing disparities; ensuring that review teams are multidisciplinary; and partnering with communities to implement recommended action steps to reduce infant mortality and eliminate disparities in infant mortality. Initially, RIM will include infants under one year who death was caused by prematurity (< 37 weeks) or a known medical cause. Fetal deaths and infant deaths due to injury, violence and sudden unexplained infant death (SUID) will be excluded. The review process will include both surveillance of all infant deaths meeting criteria for RIM inclusion and an in-depth review of a sub-

sample of infant deaths. Based on these reviews, the RIM will develop and disseminate recommendations for preventing infant deaths, and will work with local communities to implement and evaluate recommended strategies to prevent infant deaths

**Health Systems Capacity Indicator 05C:** *Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester*

INDICATOR #05 <i>Comparison of health system capacity indicators for Medicaid, non-Medicaid, and all MCH populations in the State</i>	YEAR	DATA SOURCE	POPULATION		
			MEDICAID	NON-MEDICAID	ALL
Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester	2008	payment source from birth certificate	71.2	82.5	79.6

**Notes - 2011**

Birth data are from MDPH, Vital Records for calendar year 2008 (the most recent year available). The percentages shown differ from those published elsewhere, due to how missing data are handled. The MCHB definition of the denominator is specified as all resident births during the referenced year. In MassCHIP and most Massachusetts publications (such as Massachusetts Births), percentages are reported only for cases where information is known (i.e. the denominator excludes births for which data on the variable are missing). Using the MCHB definition reduces the calculated percentage slightly.

**Narrative:**

Entry to prenatal care (PNC) in the first trimester of pregnancy is recommended because of its potential to improve the health of both mothers and infants. The Healthy People 2010 target is that at least 90% of women receive PNC before the end of the first trimester of pregnancy. MDPH uses this HSCI to monitor trends in the timing of initiation into prenatal care and to monitor our progress toward achieving the HP2010 goal. Just under 80% of Massachusetts mothers giving birth in 2008 initiated prenatal care in the first trimester of pregnancy (71.2% among Medicaid mothers and 82.5% among non-Medicaid mothers), well under the HP2010 goal.

Maternal risk factors such as substance use, domestic violence, and depression can affect both prenatal care utilization and perinatal outcomes; these risk factors are often overrepresented in Medicaid populations. Our increasing capacity to analyze perinatal risk factors and outcomes in a comprehensive and timely manner through such mechanisms as PELL and PRAMS will add to our ability to develop effective, targeted interventions, both statewide and community-based, to increase early entry to prenatal care, particularly for Medicaid women.

PRAMS data provide useful information about prenatal care utilization including timing of entry into prenatal care, whether the woman was able to get prenatal care as early as she wanted, and barriers to receipt of prenatal care. In 2008, 86% of Massachusetts mothers initiated prenatal care in the first trimester; however, mothers on Medicaid were less likely (76.2%) than non-Medicaid mothers (92.7%) to access prenatal care in the 1st trimester. More than 80% of mothers received prenatal care deemed adequate or adequate plus as measured by the Kotelchuck Index. Medicaid women were more likely to receive inadequate or no prenatal care (16%) compared with women who had non-Medicaid insurance (7%). Women who were white, non-Hispanic (90.6%), aged 30-39 years (90.3%), college-educated (94.8%) and had non-Medicaid insurance

(92.7%) were the only groups to reach the HP2010 target for early initiation of prenatal care in Massachusetts. Leading causes for not receiving prenatal care as early as was wanted among Massachusetts mothers reporting not receiving prenatal care as soon as they wanted were (not mutually exclusive): doctor or health plan would not start care as early as the mother wanted (58.1%), inability to get an appointment (51.4%), couldn't afford it (43.3%), too many other things going on (29.9%), transportation (29.2%) and didn't have a Medicaid card (24.5%).

See HSCI #04 also for additional comments.

**Health Systems Capacity Indicator 05D:** *Percent of pregnant women with adequate prenatal care (observed to expected prenatal visits is greater than or equal to 80% [Kotelchuck Index])*

INDICATOR #05 <i>Comparison of health system capacity indicators for Medicaid, non-Medicaid, and all MCH populations in the State</i>	YEAR	DATA SOURCE	POPULATION		
			MEDICAID	NON-MEDICAID	ALL
Percent of pregnant women with adequate prenatal care (observed to expected prenatal visits is greater than or equal to 80% [Kotelchuck Index])	2008	payment source from birth certificate	73.9	82.4	80.3

**Notes - 2011**

Birth data are from MDPH, Vital Records for calendar year 2008 (the most recent year available). The percentages shown differ from those published elsewhere, due to how missing data are handled. The MCHB definition of the denominator is specified as all resident births during the referenced year. In MassCHIP and most Massachusetts publications (such as Massachusetts Births), percentages are reported only for cases where information is known (i.e. the denominator excludes births for which data on the variable are missing). Using the MCHB definition reduces the calculated percentage slightly.

The Kotelchuck Index is calculated and reported routinely by the Department and is available in MassCHIP, which is the source for the 2008 data.

**Narrative:**

Adequacy of prenatal care utilization (APNCU) Index describes several aspects of prenatal care, including the timing of entry to care and the volume of care received. Prenatal care classified as "Adequate" started early in the pregnancy and involved the expected number of prenatal care visits given the duration of the pregnancy. Less than adequate care generally involves late entry and/or insufficient number of visits.

Of the 76,969 Massachusetts resident births in 2008, 61,774 (80.2%) received the observed to expected prenatal visits. Among Medicaid recipients 18% versus 61% among non-Medicaid received the observed to expected prenatal visits.

Late entry into care usually results in inadequate care scores. PRAMS 2007-2008 data show that over 10% of women reported not receiving prenatal care as soon as they had wanted. Among those not receiving care as early as desired, reasons related to the health care system were most often cited. Not being able to get an appointment sooner was the most common reason for not receiving timely care (6.9%) and not having a Medicaid card (5.5%) was the second most common cause of delay. PRAMS data were also used for further analysis of demographics and

reasons for late entry to care. While MA mothers demonstrated high levels of timely prenatal care utilization (85.0% overall), substantial differences were evident across socio-demographic groups. Beginning care in the first trimester was lowest among non-Hispanic black mothers (72.4%), youngest (62.3%), lowest educated (68.9%), and those living below or at 100% federal poverty level (72.0%). Those for whom Medicaid was a source of prenatal care payment were also less likely to enter care in the first trimester (76.1%).

See discussion under HSCIs #05B and #05C for updates related to perinatal care and outcomes.

**Health Systems Capacity Indicator 06A:** *The percent of poverty level for eligibility in the State's Medicaid and SCHIP programs. - Infants (0 to 1)*

<b>INDICATOR #06</b> <b>The percent of poverty level for eligibility in the State's Medicaid programs for infants (0 to 1), children, Medicaid and pregnant women.</b>	<b>YEAR</b>	<b>PERCENT OF POVERTY LEVEL Medicaid</b>
Infants (0 to 1)	2009	200
<b>INDICATOR #06</b> <b>The percent of poverty level for eligibility in the State's SCHIP programs for infants (0 to 1), children, Medicaid and pregnant women.</b>	<b>YEAR</b>	<b>PERCENT OF POVERTY LEVEL SCHIP</b>
Infants (0 to 1)	2009	300

**Notes - 2011**

All infants under 200% FPL are eligible for Medicaid rather than SCHIP; between 200 to 300% FPL they are eligible for SCHIP.

**Narrative:**

All infants under 200% FPL are eligible for Medicaid rather than SCHIP. Under 150% FPL, children are eligible for Medicaid rather than SCHIP. Between 150% and 300% FPL, children are eligible for the non-Medicaid portion of SCHIP -- assistance with the payment of insurance premiums; this includes Family Assistance/Direct Coverage and Family Assistance/Premium Assistance.

Please see our 5-Year Needs Assessment and State Overview (Part III, Section A.) for additional information about Medicaid and other public insurance programs in the Commonwealth under Health Care Reform.

The majority of children within both Medicaid and SCHIP are now within one of 4 managed care plans which have expanded to provide statewide coverage. The Title V program participates in regular meetings between the MA Chapter of AAP and the Medicaid agency, as well as other major managed care providers in the Commonwealth. These meetings provide an opportunity for issues to be addressed between providers and insurers, including the impact of poverty level eligibility criteria on access for families. We will be monitoring the impact of any federal changes to Medicaid and SCHIP eligibility standards as part of national health care reform.

**Health Systems Capacity Indicator 06B:** *The percent of poverty level for eligibility in the State's Medicaid and SCHIP programs. - Medicaid Children*

<b>INDICATOR #06</b> <b>The percent of poverty level for eligibility in the State's Medicaid programs for infants (0 to 1), children, Medicaid and pregnant women.</b>	<b>YEAR</b>	<b>PERCENT OF POVERTY LEVEL Medicaid</b>
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Medicaid Children (Age range 1 to 18) (Age range to ) (Age range to )	2009	150
<b>INDICATOR #06</b> <b>The percent of poverty level for eligibility in the State's SCHIP programs for infants (0 to 1), children, Medicaid and pregnant women.</b>	<b>YEAR</b>	<b>PERCENT OF POVERTY LEVEL SCHIP</b>
Medicaid Children (Age range 1 to 18) (Age range to ) (Age range to )	2009	300

**Notes - 2011**

Under 150% FPL, children are eligible for Medicaid rather than SCHIP. Between 150% and 300% FPL, children are eligible for the non-Medicaid portion of SCHIP – assistance with the payment of insurance premiums; this includes Family Assistance/Direct Coverage and Family Assistance/Premium Assistance.

**Narrative:**

Under 150% FPL, children are eligible for Medicaid rather than SCHIP. Between 150% and 300% FPL, children are eligible for the non-Medicaid portion of SCHIP -- assistance with the payment of insurance premiums; this includes Family Assistance/Direct Coverage and Family Assistance/Premium Assistance.

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**Health Systems Capacity Indicator 06C:** *The percent of poverty level for eligibility in the State's Medicaid and SCHIP programs. - Pregnant Women*

<b>INDICATOR #06</b> <b>The percent of poverty level for eligibility in the State's Medicaid programs for infants (0 to 1), children, Medicaid and pregnant women.</b>	<b>YEAR</b>	<b>PERCENT OF POVERTY LEVEL Medicaid</b>
Pregnant Women	2009	200
<b>INDICATOR #06</b> <b>The percent of poverty level for eligibility in the State's SCHIP programs for infants (0 to 1), children, Medicaid and pregnant women.</b>	<b>YEAR</b>	<b>PERCENT OF POVERTY LEVEL SCHIP</b>
Pregnant Women	2009	200

**Notes - 2011**

Technically, pregnant women are not eligible for SCHIP, but remain eligible based on age or income for Medicaid. If they are ineligible for Medicaid but are at or below 225% FPL, they are

eligible for Healthy Start pregnancy-related services through SCHIP as coverage for the unborn child.

**Narrative:**

Technically, pregnant women are not eligible for SCHIP, but remain eligible for Medicaid based on age or income. If they are ineligible for Medicaid and are at or below 225% FPL, they are eligible for Healthy Start pregnancy-related services through SCHIP as coverage for the unborn child.

Massachusetts provides regular Medicaid (MassHealth) coverage for women up to 200% of the FPL and also has the Healthy Start program. We work very closely with MassHealth to assure access for pregnant women to comprehensive health benefits.

**Health Systems Capacity Indicator 09A:** *The ability of States to assure Maternal and Child Health (MCH) program access to policy and program relevant information.*

<b>DATABASES OR SURVEYS</b>	<b>Does your MCH program have the ability to obtain data for program planning or policy purposes in a timely manner? (Select 1 - 3)</b>	<b>Does your MCH program have Direct access to the electronic database for analysis? (Select Y/N)</b>
<u>ANNUAL DATA LINKAGES</u> Annual linkage of infant birth and infant death certificates	3	Yes
Annual linkage of birth certificates and Medicaid Eligibility or Paid Claims Files	2	No
Annual linkage of birth certificates and WIC eligibility files	3	Yes
Annual linkage of birth certificates and newborn screening files	3	Yes
<u>REGISTRIES AND SURVEYS</u> Hospital discharge survey for at least 90% of in-State discharges	3	Yes
Annual birth defects surveillance system	3	Yes
Survey of recent mothers at least every two years (like PRAMS)	3	Yes

**Notes - 2011**

**Narrative:**

These Health Systems Capacity Indicators reflect the breadth and scope of the Commonwealth's historic commitment to MCH data capacity. We have highly skilled internal staff and systems, including a number of MCH epidemiologists and an Office of Data Translation (ODT) that enable us to carry out most of these capacity items. Over time, the number of areas where the Title V staff have direct access to or manage these data systems has increased. This HSCI (along with HSCI #09B) serves as the performance measure for our state SSDI grant.

Massachusetts PRAMS continues its data collection activities and produced a surveillance report and fact sheets in September 2009. PRAMS data are now fully available for calendar years 2007 and 2008. SSDI continues to support PRAMS by funding an MCH epidemiologist who serves part-time as the PRAMS Project Director. A second key SSDI project is to continue WIC data linkage to births using Massachusetts' Pregnancy to Early Life Longitudinal (PELL) data system. WIC data are now available for linkage in a timely manner.

Establishing linkages to WIC included a contract that formally provides funding from WIC to PELL and gives the programmers status as WIC consultants, easing access concerns.

Our only incomplete scores is for direct linkages between birth files and Medicaid. Linkage of births with Medicaid (including SCHIP, Healthy Start, and other programs); higher scores are not expected soon. Given federal regulations, MassHealth may share identifiable data only to support MassHealth purposes; this has proven difficult to accomplish. MassHealth has expressed interest in PELL longitudinally linked data concerning interpregnancy intervals. Specifications for a new MassHealth information system include linkage with births as part of eligibility determination, and Title V is represented in systems planning.

Another area of interest is Medicaid analysis of asthma-specific claims data, which the MDPH Asthma Prevention and Control Program could examine related to asthma controller medication use/asthma control outcomes among children served by MassHealth.

See the narrative sections of NPMs # 1, 8, 12, and 15 and current SPMs # 1, 2, 3, 6, and 10 for information on how data systems are used. Also see the discussion in the Attachment to Part IV, Section F for our current Priority Need #4 related to the integration of systems and data and the use of data to inform practice.

With PRAMS now fully operational, 2007-2008 PRAMS data were used to measure third trimester smoking (NPM 15) and first-trimester prenatal care and to develop a number of topic-specific fact sheets. PRAMS data have been linked with PELL and analyses have begun.

Early Intervention program data linked with birth certificates in the PELL data system have been used to examine the increase of early ASD diagnoses. A proposal to the Department of Elementary and Secondary Education (DESE) to link their special education data with PELL is currently under review at DESE.

**Health Systems Capacity Indicator 09B:** *The Percent of Adolescents in Grades 9 through 12 who Reported Using Tobacco Product in the Past Month.*

DATA SOURCES	Does your state participate in the YRBS survey? (Select 1 - 3)	Does your MCH program have direct access to the state YRBS database for analysis? (Select Y/N)
Youth Risk Behavior Survey (YRBS)	3	Yes
Youth Health Survey	3	Yes

**Notes - 2011**

**Narrative:**

Data on youth smoking are available from both the Youth Risk Behavior Survey (YRBS) and the Massachusetts Youth Health Survey (MYHS). These two surveys were combined in FY07 and are administered in odd-numbered years on a bi-annual basis. We have full access to the data from the new survey methodology. The consolidation resulted in a more efficient use of limited resources, more consistent data, and better continued cooperation from school districts in allowing the surveys to be administered regularly.

Also relevant is the discussion in the Attachment to Part IV, Section F for our Priority Need #4 related to the integration of systems and data and the use of data to inform practice.

Statewide surveillance data as well as local program data on youth smoking are actively used to guide and evaluate the programs and initiatives of the Massachusetts Tobacco Control Program. Findings show that state funded initiatives have reduced teen smoking and limited minors' access to tobacco products.

Youth surveillance data are also used to identify health disparities and to guide the development of programs and targeting of resources in multiple areas in addition to tobacco use. These areas include suicide prevention, substance use, healthy weight and physical activity, violence, and other risk behaviors.

Data from the 2009 joint administration of the MYHS and MYRBS in collaboration with the MA Department of Elementary and Secondary Education provided updated estimates of the prevalence of health conditions, risk and protective factors to inform the five year needs assessment.

In FY 2010, surveillance data are being used to develop a mathematical model to predict local prevalence of smoking and identify geographic areas of high need. When available, local youth survey data will be compared to estimated figures. The hope is that starts a conversation with local schools and key stakeholders about the need for local youth programs.



## **IV. Priorities, Performance and Program Activities**

### **A. Background and Overview**

The "Title V Block Grant Performance Management System," established under the Government Performance and Results Act (GPRA -- Public Law 103-62) is designed to document the State's progress on measurable performance targets and outcomes. Specific program activities are to be described and categorized by the four service levels found in the MCH "pyramid" -- direct health care, enabling, population-based, and infrastructure building services -- in a flexible manner to best address the priority needs of the state in the context of its capacity. Program activities, as measured by 18 National performance measures and from 7 to 10 State performance measures should have a collective contributory effect to positively impact a set of 6 National outcome measures for the Title V population.

Accountability is determined in 3 ways: (1) by measuring the progress towards successful achievement of each individual performance measure; (2) by having budgeted and expended dollars spread over all four of the recognized MCH services; direct health care, enabling services, population-based services, and infrastructure building services, and (3) by having a positive impact on the outcome measures. While improvement in outcome measures is the long term goal, more immediate success will be realized by positive impact on the performance measures which are shorter term, intermediate, and precursors for the outcome measures. This is particularly important since there are other significant factors outside of Title V control affecting the outcomes and the outcomes may not reflect of a state's all long-term goals. [For example, all 6 of the National Outcomes are variations on mortality rates and they do not include measures of lifelong wellbeing, educational attainment, productivity, etc.]

The chart attached to this section summarizes for Massachusetts the relationships among the Needs Assessment, the new Priority Needs, the MCH "Pyramid," National Performance and Outcome Measures, the 10 new State Performance Measures (SPMs), and the one new State Outcome Measure. As required, the new Priority Needs and Performance Measures collectively address all MCH populations and levels of the MCH Pyramid. In fact, many of the Priority Needs and SPMs address issues that relate to all MCH populations and/or involve proposed actions at more than one level of the pyramid. Partnership funds are budgeted for all populations and across all levels of the Pyramid.

In terms of measuring our success at improving maternal and child health through the Federal-State MCH Partnership, the overall health status and access to health care services of the MCH population in Massachusetts continues to improve. At the same time, there are some areas in which this generally positive progress has reached a plateau, or in which poorer outcomes have persisted. Even where there have been improvements overall, significant disparities in outcomes and measures persist for some population groups or areas of the Commonwealth. Because of wide and growing coverage of health services through MassHealth and Health Care Reform, relatively little Title V funding is expended on direct medical services. Rather, BFCH efforts are primarily focused on non-medical direct services, enabling, infrastructure and population-based services to further improve accessibility and coordination of services. In particular, data analysis and the development of innovative linked datasets continue to be strengths of the Massachusetts program. They are critical to our better understanding of the underlying contributing factors to poor health outcomes or disparities in order to develop and target strategies for improvement.

#### **Status of Progress on Measures for FY09 Annual Report**

To more specifically address progress, the status of FY09 Annual Performance Objectives for Massachusetts is summarized below:

National Performance Measures (18 in total)

8 Annual Performance Objectives Met or Exceeded (#01, 07, 08, 10, 11, 12, 14, and 16)

5 Annual Performance Objectives -- No new data for FY09 (# 02, 03, 04, 05, 06) - those related to CSHCN with data from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. Of these, we had met our targets for 2 last year and had not met them for 3.

5 Annual Performance Objectives Not Met (#09, 13, 15, 17, and 18). In all cases, the differences from the objective were small.

For NPM #13 (children without health insurance), the difference between the slightly higher FY09 rate and the FY08 one is not statistically significant. After a couple of years of improvement on some of these measures, some slippage was seen in the most recent data (e.g. #09 - dental sealants). Progress on #17 and #18 remains stalled at less than desirable levels.

Current State Negotiated Measures (9 total):

5 Annual Performance Objectives Met or Exceeded (#02, 06, 09, 10, and 11)

2 Annual Performance Objectives -- No new data for FY06: #01 (biennial survey conducted in FY08) and #08 (child care consultants; survey put on hold pending new data system; this measure is being retired).

2 Annual Performance Objectives Not Met (#03, and 04). For #04 (Medicaid preventive dental services), the difference was small (53.5% actual versus a target of 55.0%) and the rate still was an improvement from FY08. For #03 (IPI rates), the survey data continue to fluctuate and predictions are thus subject to error.

On the National Outcome Measures, Massachusetts continues to have outcomes that are generally better than the national average, but improvement against our own benchmarks for the 5 perinatal and infant mortality measures remains essentially stalled, with some worsening of racial disparities in outcomes. A number of new initiatives have been started to identify what factors can be changed or influenced to reduce perinatal mortality.

***An attachment is included in this section.***

## **B. State Priorities**

From its analysis of the Needs Assessment findings, Massachusetts selected the following 10 Priority Needs. These priorities are equal in importance and are not listed in any "ranked" order. The chart attached to the previous section (Part IV, Section A) summarizes the relationships among the Needs Assessment, new Priority Needs, the MCH "Pyramid," National Performance and Outcome Measures, and the 10 new State Performance Measures (SPMs).

The performance measures related to each priority are referenced below by priority. The relationships between the Massachusetts State Priorities and both NPMs and SPMs are displayed visually in the table, which is the first page of the Attachment to this section.

Two of the new State Performance Measures are composite measures, scored by unique scales. The Checklists for each of those SPMs are also attached to this section, following the Table.

Please note that additional information on activities that address Priority Needs not covered by NPMs or SPMs is provided in the annual Attachment to Part IV, Section F. For 2011, this attachment includes information on our Current Priority Needs # 1, 2, 4, 6, 7, 8, 9, and 10.

### **Priority Need #1: Promote Healthy Weight**

Healthy weight is emerging as a critical public health issue over the next decade. The rationale for addressing healthy weight as a Priority Need is clear and MDPH has the access to resources and the position in the community to be a key voice on healthy weight. The Needs Assessment presents many statistics addressing the scope and severity of issues related to healthy weight, including health disparities. The majority of Massachusetts residents are obese or overweight and 30% of children/youth are overweight. Obesity is associated with multiple adverse short- and long-term health outcomes particularly with overweight starting early in life (diabetes, gestational

diabetes, heart disease, etc.), which disproportionately affect minorities. Action on this MCH priority is feasible, has strong political will and is aligned with several MDPH initiatives (Mass in Motion Initiative, the Wellness Promotion Advisory Board). There is an opportunity to leverage programs touching many populations (WIC, EI, School Health Services) and new funding opportunities.

Over the next year, this Priority will be measured through a developmental SPM. (SPM6: Develop an MCH healthy weight measure that aligns with MDPH's overall strategy for promoting healthy weight across all populations). A strategic planning process with further stakeholder input and engagement will more clearly define the healthy weight strategy before creating a specific process or outcome measure. Other related measures include NPM14 (WIC BMI) and NPM11 (Breastfeeding).

**Priority Need #2: Promote emotional wellness and social connectedness across the lifespan**  
Emotional wellness is a broad need affecting the development of individuals, especially children, at key times in their lives. Indicators include depression, feeling sad and hopeless, violence, bullying, suicidality, and other behavioral health problems. During interviews, internal and external stakeholders consistently highlighted the need for mental health support, lack of capacity and service gaps for all MCH populations. Solutions involving collaboration among state agencies, providers, families, and other policymakers can include universal screening and risk identification, broad-based education and communication, improved training and workforce development, improved treatment services and reimbursement, and better data. Current efforts such as the Children's Behavioral Health Initiative will continue to support progress.

This Priority will be measured through a combination of NPM16 (Adolescent suicide deaths) and a state developed process measure SPM2 (How DPH promotes emotional wellness using data to inform policy and programs; building partnerships; supporting workforce development; improving family support; and raising awareness on a 0-108 scale). SPM2 defines a series of process action steps and success indicators to improve the state's understanding and focus on mental health issues.

**Priority #3: Coordinate preventive oral health measures and promote universal access to affordable dental care**

In Massachusetts, the lack of dental care is highly correlated with income. Improving prevention and access to oral health care are critical needs for children and youth, and for low-income adults. Blacks and Hispanics in Massachusetts have much higher rates of tooth loss compared to Whites. Decay and caries correlate with poor adult dental health and the prevalence of dental caries is nearly twice as high in non-White kindergarten children as in White children. Seventeen percent of the state's 3rd graders have untreated decay. Changes in Medicaid rules and payment schedules have improved access over the last 5 years, as have initiatives promoting fluoride varnish, childcare/Head Start programs, school programs, and guidelines/standards for portable oral health programs, including expanded public health roles for dental hygienists. But there is still much room for improvement.

This Priority will be measured through NPM9 (Dental Sealants) and a new SPM4 (The percentage of women with a recent live birth reporting that they had their teeth cleaned recently (within 1 year before, during, or after pregnancy)). Providers rarely mention the importance of oral health during prenatal visits, thus missing a key opportunity to decrease gaps in oral health care. SPM4 will help measure success of efforts in this area.

**Priority Need #4: Enhance screening for and prevention of violence and bullying**

The adverse physical and mental health outcomes associated with exposure to violence, as either victim, witness, or perpetrator, underscore the need to integrate violence prevention into all MCH initiatives. Gender-based violence (domestic violence and sexual assault), is a particular risk for the MCH population. Violence occurs in multiple forms including bullying, community violence, violence against women, youth violence, and violence against infants. Violence and

bullying disproportionately impact women, minorities, and persons with disabilities. MDPH must continue as a leader in violence prevention efforts, viewing violence and bullying as a preventable public health issue. To address this priority, we will build upon existing programs to promote screening and referral in MCH-related programs, educate providers, increase public awareness, outreach to high-risk populations and collaborate with schools and other community partners, and support recent state legal and regulatory changes related to shaken baby syndrome, bullying, and youth violence.

This priority will be measured through two newly developed state measures: domestic and dating violence and school safety. The first will be measured through SPM5 (The percentage of School Based Health Center clients for whom an assessment for intimate partner/teen dating/sexual violence was done) and the second through SPM9 (The percentage of high school students having missed a school day due to feeling unsafe at or on the way to school).

#### Priority # 5: Support reproductive and sexual health by improving access to education and services

Trends in birth statistics, including teen pregnancy, use of reproductive assistance, and rates of sexually transmitted diseases illustrate the growing importance of appropriate sexual health choices, all age groups including adolescents. MDPH has a critical role in addressing sexual health and needs to ensure it is addressed across programs. Almost a third of high school youth reported being sexually active in the last three months, and almost 39% of sexually active high school youth reported not using a condom during last sexual intercourse. The number of pregnancies among women aged 45 years and older is rising, a group that also is more likely to use reproductive assistance (29.6%). Family planning is needed to reduce teen or unintended pregnancy, and the sequelae of assisted reproductive technology on infant health and development need to be better understood and addressed.

This priority will be measured primarily through NPM8 (Teen births) and the continued SPM1 (The percentage of pregnancies among women age 18 and over that are intended). In addition, three new state measures will be related indicators: SPM2 (Promote emotional wellness), SPM3 (Female binge drinking), and SPM5 (Partner violence addressed at SBHC visits).

**Priority Need # 6:** Improve the health and well-being of women in their childbearing years  
Despite improving overall perinatal health outcomes in Massachusetts, racial/ethnic disparities are widening. Furthermore, LBW and infant mortality rates have not improved, adequacy of prenatal care has declined and infant/neonatal mortality has increased among Hispanic and Asian populations, in the last decade. Analyses of these racial disparities show that eliminating the disparity between Whites and Blacks and Hispanics will improve birth outcomes overall. A woman's health status prior to becoming pregnant and between pregnancies is a key factor in her pregnancy outcome. Health promotion activities, freedom from domestic violence, food security and good nutrition, access to primary care and family planning, screening and interventions for risk-taking behaviors, oral health services, and good mental health are all critical to overall good family health.

This priority is continued from 2005. We will place emphasis on improving pre and interconception health of women by promoting healthy behaviors; addressing the impact of age on birth outcomes; and influencing policy and licensing requirements that reduce systems barriers. In addition, more extensive and sophisticated data analyses (such as a new Review of Infant Mortality or RIM) will be applied to decrease the incidence of preventable infant deaths in Massachusetts.

The priority will be measured through six different NPMs and a new SPM3 (The percentage of females ages 18 - 45 reporting binge drinking). SPM2 (Promoting emotional wellness) and SPM5 (Partner violence addressed in SBHC visits) are also applicable.

#### Priority # 7: Reduce unintentional injury and promote healthy behavior choices for adolescents

Many high school students engage in risk behaviors that pose threats to their health and safety. Students who engage in one high-risk behavior are often likely to engage in other risky behaviors.

Unintentional injury accounts for the largest percentage of deaths among children and youth. As unintentional injuries are preventable, especially among adolescents, it is a critical public health issue. Furthermore, there is a strong documented link between risk factors and adolescent behaviors which can lead to multiple adverse outcomes. One risk behavior (e.g. drinking) can impact other health consequences (e.g. automobile injuries, dating violence), underscoring the link between risk factors and health outcomes. On the other hand, factors identified as "assets" or "resiliency factors" are associated with lower levels of one or more risk behaviors. A range of approaches, some focused on the individual and providers, and others on the environment, will continue. MCH providers are well positioned to provide clients with injury prevention messages and strategies. Also important are regulatory and public safety efforts, public awareness of risks and alternative behaviors and improving the statewide child fatality review process.

This priority is continued from 2005 and is tracked by SPM10 (The percentage of adolescents reporting no current use (in past 30 days) of either alcohol or illicit drugs) and a new SPM8 which covers a critical age gap left by NPM10 (Motor vehicle deaths ages 15-24). NPM10 captures the safety of children as pedestrians or with an adult driving, whereas SPM8 covers the adolescent as the driver. SPM3 (Female binge drinking) is also applicable.

**Priority # 8: Expand medical home efforts to focus on systems building and securing access & funding for children and youth**

The medical home model is an ongoing focus of Title V and this priority highlights our broad strategy for promoting medical home to include all children, in an effort to improve overall healthcare and engage a wider range of stakeholders. This is in line with new initiatives at the Secretariat level to develop and promote the medical home model across the entire population using public health care funds. Fewer than half of CYSHCN in Massachusetts met the NPM standard for medical home in the last survey.

A number of activities will be implemented to enhance the medical home concept including expanding MDPH practice-based care coordination to strengthen and expand medical home model in medical practices; demonstrating the effectiveness of medical home for CYSHCN, their families and providers; strengthening our capacity to train/mentor primary care providers to include medical home in their practices; developing standards and offering medical home certification to pediatric practices that implement them; promoting reimbursement by insurers for strategies that support the medical home model; and increasing family involvement in promoting medical home

This priority will be measured by NPMs 4, 6, and 13 and a new SPM7 (The rate (per 100,000) of hospitalizations due to asthma among Black, non-Hispanic and Hispanic children aged 0-4 years). The new measure, related to Health Systems Capacity Indicator # 1 will help monitor and highlight disparities in services for children without a medical home.

**Priority Need # 9: Support effective transitions from (1) early childhood to school and (2) adolescence to adulthood for children and youth with special health care needs**

Compared with other NSCSHCN-measured outcomes, transition stands out as problematic. Health professionals can play a critical role but fewer than half of Massachusetts respondents said their doctors provided guidance and support on transition in the last survey, suggesting substantial room for improvement. The stakes for youth are substantial, given the relationships between disabilities, workforce participation, poor adult health, lower income, and other disparities.

Stakeholders with expertise in CYSHCN all named transition for CYSHCN to adulthood as a priority. Transition from early childhood to school is also a priority reflecting the equally critical developmental importance of successful transition for children with special health needs from

early childhood services. It also reflects the continuum of screening, referral and interventions needed to promote optimal early childhood development and have all children ready to learn as they enter school.

This systems-building priority will be measured through NPM6 (and to some degree by NPMs 2 -- 4 also). Early childhood transition for children at risk is one of the focus areas in SPM2 (Promoting emotional wellness). SPM7 (Asthma hospitalization disparities in young children) and, SPM10 (Adolescent substance abuse) may also address service transitions at these critical ages.

**Priority Need # 10: Improve data availability, access and analytical capacity**

Data access will continue as a priority for Massachusetts. We recognize the importance of linked datasets and data access for the community to support local program development. BFCH has developed a sophisticated capacity for electronic data collection and dissemination. We have developed and are using unique and innovative linked datasets such as the Pregnancy to Early Life Longitudinal (PELL) Data System. However, there are still opportunities to create even more comprehensive, timely, and flexible data systems which could increase our understanding of populations to improve marketing, service and outreach, track youth aged 3 years and older and across generations; expand use of data for performance-based management of programs; further original research supporting evidence-based policies; and build upon PELL to show outcomes across program activities and improve longitudinal analysis of outcomes.

Improved data availability, access, and analytical capacity will not be measured directly by any NPM or SPM. Instead, it will be part of the NPM, SPM, HSCI, and HSI data collection processes and reporting. Many aspects of this capacity will be specifically reflected in Health Systems Capacity Indicator #09.

***An attachment is included in this section.***

## C. National Performance Measures

**Performance Measure 01:** *The percent of screen positive newborns who received timely follow up to definitive diagnosis and clinical management for condition(s) mandated by their State-sponsored newborn screening programs.*

### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	100	100	100	100	100
Annual Indicator	100.0	100.0	100.0	99.2	100.0
Numerator	131	102	115	119	149
Denominator	131	102	115	120	149
Data Source				New Eng Regional Newborn Screening Program	New Eng Regional Newborn Screening Program
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Final

	2010	2011	2012	2013	2014
Annual Performance Objective	100	100	100	100	100

#### Notes - 2009

Data on Newborn Screening from the New England Newborn Screening Program (NENSP) at the University of Massachusetts Medical School. The data are for Calendar Year 2009. The NENSP provides all these newborn screening services and furnishes these data. See Form 06 and its Notes also. Effective February 2009, Massachusetts screened every newborn for 30 disorders (an expansion under new state regulations from 10); these screens may show information about 23 additional disorders/conditions (by-products of mandatory screening). The 30 conditions are listed below; the previous ten mandated ones are asterisked (\*):

- (1) Argininemia (ARG)
- (2) Argininosuccinic acidemia (ASA)
- (3)  $\beta$ -Ketothiolase deficiency (BKT)
- (4) Biotinidase deficiency (BIOT) \*
- (5) Carbamoylphosphate synthetase deficiency (CPS)
- (6) Carnitine uptake defect (CUD)
- (7) Citrullinemia (CIT)
- (8) Congenital adrenal hyperplasia (CAH) \*
- (9) Congenital hypothyroidism (CH) \*
- (10) Congenital toxoplasmosis (TOXO) \*
- (11) Cystic fibrosis (CF)
- (12) Galactosemia (GALT) \*
- (13) Glutaric acidemia type I (GAI)
- (14) Homocystinuria (HCY) \*
- (15) 3-hydroxy-3-methyl glutaric aciduria (HMG)
- (16) Isovaleric acidemia (IVA)
- (17) Long-chain L-3-OH acyl-CoA dehydrogenase deficiency (LCHAD)
- (18) Maple syrup disease (MSUD) \*
- (19) Ornithine transcarbamylase deficiency (OTC)
- (20) Phenylketonuria (PKU) \*
- (21) Sickle cell anemia (Hb SS) \*
- (22) Hb S/C disease (Hb SC) \*
- (23) Hb S/ $\beta$ -thalassemia (Hb S/ $\beta$ Th) \*
- (24) Medium-chain acyl-CoA dehydrogenase deficiency (MCAD) \*
- (25) Methylmalonic acidemia: mutase deficiency (MUT)
- (26) Methylmalonic acidemia: cobalamin A, B (Cbl A,B)
- (27) Methylmalonic acidemia: cobalamin C,D (Cbl C,D)
- (28) Propionic acidemia (PROP)
- (29) Tyrosinemia type I (TYR I)
- (30) Very long-chain acyl-CoA dehydrogenase deficiency (VLCAD)

Every newborn with abnormal results is tracked to a normal result or appropriate clinical care. In 2009, the total of 149 confirmed cases from mandated screening receiving treatment included 7 with PKU, 65 with Congenital Hypothyroidism, 1 with Galactosemia, 26 with Sickle cell disease (Hb SS), 8 with Hemoglobin S/C disease (Hb SC), 22 with Cystic Fibrosis, 1 with Congenital Toxoplasmosis, 3 with Congenital Adrenal Hyperplasia, 6 with MCAD, 5 with VLCAD, 1 with Carnitine uptake deficiency (CUD), 1 with Homocystinuria, 1 with Ornithine transcarbamylase deficiency, 1 with Methylmalonic acidemia: mutase deficiency, and 1 with Methylmalonic acidemia: cobalamin C,D (Cbl C,D). Of these newborns with abnormal results, 17 were also identified with metabolic by-products of the mandatory screens and received appropriate treatment (11 SCAD, 5 3MCC, and 1 Hypermethioninemia).

See the Newborn Screening Program brochure attached to the NPM #01 narrative for further information about the conditions and program.

**Notes - 2008**

Data on Newborn Screening from the New England Newborn Screening Program (NENSP) at the University of Massachusetts Medical School. The data are for Calendar Year 2008. The NENSP provides all these newborn screening services and furnishes these data. See Form 06 and its Notes also. In 2008, Massachusetts screened every newborn for ten disorders: Phenylketonuria (PKU), Congenital Hypothyroidism (primary), Galactosemia, Hemoglobin Disorders (including sickle cell anemia), "Maple Syrup" Urine Disease (MSUD), Homocystinuria, Congenital Toxoplasmosis, Congenital Adrenal Hyperplasia, Biotinidase Deficiency, and Medium-chain acyl Co-A dehydrogenase deficiency (MCAD).

Every newborn with abnormal results is tracked to a normal result or appropriate clinical care. In 2008, the total of 120 confirmed cases from mandated screening receiving treatment included 6 with PKU, 65 with Congenital Hypothyroidism, 1 with Galactosemia, 35 with Sickling Disorders, 3 with Congenital Toxoplasmosis, 4 with Biotinidase Deficiency, 5 with Congenital Adrenal Hyperplasia, and 1 with MCAD.

Due to unusual circumstances in 2008, one baby with sickling disease is not counted as being under treatment. This baby was lost to follow-up. We believe the family moved back to Haiti but could not track the family and infant to determine if proper follow-up is occurring.

**Notes - 2007**

Data on Newborn Screening from the New England Newborn Screening Program (NENSP) at the University of Massachusetts Medical School. The data are for Calendar Year 2007. The NENSP provides all these newborn screening services and furnishes these data. See Form 06 and its Notes also. Massachusetts screens every newborn for ten disorders: Phenylketonuria (PKU), Congenital Hypothyroidism (primary), Galactosemia, Hemoglobin Disorders (including sickle cell anemia), "Maple Syrup" Urine Disease (MSUD), Homocystinuria, Congenital Toxoplasmosis, Congenital Adrenal Hyperplasia, Biotinidase Deficiency, and Medium-chain acyl Co-A dehydrogenase deficiency (MCAD).

Every newborn with abnormal results is tracked to a normal result or appropriate clinical care. In 2007, the total of 115 confirmed cases from mandated screening receiving treatment included 2 with PKU, 52 with Congenital Hypothyroidism, 1 with Galactosemia, 48 with Sickling Disorders, 2 with Congenital Toxoplasmosis, 3 with Biotinidase Deficiency, 6 with Congenital Adrenal Hyperplasia, and 1 with MCAD.

**a. Last Year's Accomplishments**

See also NPM #12.

Two approaches were (and are) used to assure that all babies born in MA had blood specimens collected for newborn screening.

--A statewide check made by NENSP staff using a series of data set algorithms comparing electronic birth certificate data with specimens received, finding babies over 2 weeks old with no specimens and following up to receive specimens.

--Provider-focused checks. Electronic files are submitted to the NENSP from selected hospital NICUs, Community Health Center, and pediatric practices with data on all babies either in their nursery or being seen in their pediatric practice. These files are electronically matched to specimens received: non-matched babies are reported back to get specimens

The Amendments to Licensure Regulations Governing the Testing of Newborns for Treatable Diseases (105 CMR 270.000), developed collaboratively by the DPH Newborn Screening Advisory Committee, DPH Legal Office, NENSP and BFHN, were approved by the MA Public Health Council, submitted to the Secretary of State for final approval, and took effect on 2/1/2009. 30 routine screenings are now performed on all newborns and screening for these 30 disorders may show information about 23 additional disorders/conditions (by-products of mandatory



screening). There are 2 optional screenings (pilot studies) that require consent from parents (Severe Combined Immune Deficiency (SCID) and a panel of an additional five metabolic disorders).

New materials describing the revised screening panel were developed and disseminated to hospitals and other providers. The parent brochure that describes the newborn blood screening and serves as the source of information upon which parents base their consent for the optional testing was significantly updated to describe the new pilots, approved by IRB, translated into 7 languages in addition to the standard English version, and distributed to all birth hospitals before implementation. The UMass NENSP website was updated to accommodate the changes in the parent brochure.

In addition to the addition of SCID and certain metabolic disorders to the laboratory testing, the laboratory has improved some testing algorithms to increase sensitivity and improve the quality of the screen interpretation to the medical home.

With NENSP, the NE Public Health Genetics Education Collaborative's newborn blood screening brochure was printed in 5 languages and disseminated to families, providers, and DPH programs.

DPH materials about its special health needs programs were distributed through NENSP.

Individual paper reports of all newborn blood screening results (normal as well as out-of-range) are mailed to each of the following: 1) the birth hospital, 2) the pediatrician listed on the submitted form, and 3) the submitter (if checkmark-indicated on the submitted form and different from both 1 and 2 above).

Through the New England Genetics Collaborative (NEGC) grant, intensive in-state long term follow-up (LTFU) planning continued, along with a regional component to coordinate data on affected infants across New England, including work on an interstate data-sharing agreement. Meetings were held with state public health privacy officers to determine legalities of data sharing. In addition, the NENSP is leading an inter-regional analysis to improve the quality of tandem mass spectrometry results interpretation and reporting.

Newborn Hearing Screening Director and NENSP continued collaborations and regional meetings.

The Director of the Newborn Hearing Screening Program serves as liaison to the NENSP to ensure families are connected to DPH services and to participate in NENSP planning and annual meetings. The Director also participated in New England Genetics Collaborative (NEGC), NENSP LTFU workgroup, and New England Regional Genetics Group (NERGG).

BFHN, NENSP and DPH Legal Office collaborated on issues related to long-term follow-up, including developing systems to share data on "border babies."

CYSHN liaison to the NENSP Advisory Committee, including planning committee for meetings.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Assure collection of blood specimens from all MA births by identifying any missing specimens through electronic matching of received specimens with (1) provider-submitted birth records and (2) statewide electronic birth certificates.			X	
2. Screen all newborns (mandated) for 30 treatable disorders,			X	

through the New England Newborn Screening Program.				
3. Optionally screen for 1 additional metabolic panel, plus SCID through 2 pilot programs; monitor over time to recommend any additional mandated screenings.			X	
4. Track every newborn with abnormal results to a normal result or appropriate clinical care and, with other New England states, plan to carry out Long Term Follow-Up (LTFU) project for continued access to care.			X	X
5. Perform regular quality improvement activities to assure all babies are screened and that affected infants and children have continued access to care (LTFU activities).				X
6. Continue Bureau of Family Health and Nutrition (BFHN) and NENSP collaboration to assure ongoing linkages of families to comprehensive services.		X		X
7. Work toward improved integration of genetics and newborn screening.				X
8. Regularly convene and maintain staffing for the DPH Newborn Screening Advisory Committee meetings and special forums to promote high quality newborn screening and follow-up and continuous improvement in the state system.				X
9. Through regional collaboration, address newborn blood (and hearing) screening issues for "border babies" residing in MA but born in neighboring states, and vice versa.				X
10. Increase consumer and provider knowledge and access to newborn screening and genetics information and services, including workshops, phone consultation and distribution of printed materials for mandated and optional screenings.				X

#### **b. Current Activities**

The Newborn Screening Advisory Committee met in June 2010 to review implementation of the revised screening panel and make further recommendations. Screenings occur for all Massachusetts births in accordance with the newly established regulations. The NENSP manages systems that ensure prompt follow-up occurs and diagnosis is achieved for infants that screens positive or needs repeat screens.

BFHN, NENSP and the DPH Legal Office continue to collaborate on issues related to long-term follow-up, including developing systems to share data on "border babies" (infants being born or receiving care in a state other than the one in which the mother resides) and to revisit policies on specimen storage and usage.

Active BFHN participation continues in activities related to the New England Regional Genetics Collaborative, including medical home and educational subcommittees, and the New England Regional Genetics Board.

#### **c. Plan for the Coming Year**

See also NPM #12. Continue ongoing activities.

The Newborn Screening Advisory Committee will meet to review implementation of the revised screening panel and make further recommendations.

The NENSP expects to have the infrastructure in place to have the capacity to electronically transmit newborn screening results using standardized HIE formats. Implementation will depend

on capacities of clients (hospitals, for example) to receive such transmissions, and implementation of electronic interfaces.

The NENSP is in the selection stage of a process to replace its current LIMS data system. The next generation LIMS will ensure continued stability of data storage as samples and tests being stored increase, and will incorporate improved data merging, QC, HIE, and analytic functionalities. Configuration to meet the special needs of the NENSP, validation, and implementation will occur during calendar 2011.

Additional Emergency Preparedness activities are being planned to further increase the robustness of the NENSP emergency back-up capabilities, and to engage UMass and State agencies in activities that will assure integration of efforts related to newborn screening and follow-up during emergencies.

The Newborn Hearing Screening Program Director will continue working with the NENSP, DPH Legal Office, and other NE states through the Long-Term Follow-up Workgroup to ensure agreements are in place to analyze data as part of continuous quality improvement efforts for NBS.

Newborn Hearing Screening Program Director will continue working with the NBS Advisory Committee, NEGC, NEGC Medical Home Working Group, and NERGG Board as MA representative.

Begin to explore feasibility of integration of NBS data with PELL.

### **Form 6, Number and Percentage of Newborns and Others Screened, Cases Confirmed, and Treated**

The newborn screening data reported on Form 6 is provided to assist the reviewer analyze NPM01.

<b>Total Births by Occurrence:</b>	<b>75850</b>					
<b>Reporting Year:</b>	<b>2009</b>					
<b>Type of Screening Tests:</b>	<b>(A) Receiving at least one Screen (1)</b>		<b>(B) No. of Presumptive Positive Screens</b>	<b>(C) No. Confirmed Cases (2)</b>	<b>(D) Needing Treatment that Received Treatment (3)</b>	
	No.	%	No.	No.	No.	%
Phenylketonuria (Classical)	75288	99.3	186	7	7	100.0
Congenital Hypothyroidism (Classical)	75288	99.3	1215	65	65	100.0
Galactosemia (Classical)	75288	99.3	37	1	1	100.0
Sickle Cell Disease	75288	99.3	26	26	26	100.0
Biotinidase Deficiency	75288	99.3	13	0	0	
Congenital	75288	99.3	8	1	1	100.0

Toxoplasmosis						
Cystic Fibrosis	75259	99.2	294	22	22	100.0
Homocystinuria	75288	99.3	176	1	1	100.0
Maple Syrup Urine Disease	75288	99.3	193	0	0	
beta-ketothiolase deficiency	75259	99.2	5	0	0	
Tyrosinemia Type I	75259	99.2	0	0	0	
Very Long-Chain Acyl-CoA Dehydrogenase Deficiency	75259	99.2	13	5	5	100.0
Argininosuccinic Acidemia	75259	99.2	0	0	0	
Citrullinemia	75259	99.2	0	0	0	
Isovaleric Acidemia	75259	99.2	16	0	0	
Propionic Acidemia	75259	99.2	30	0	0	
Carnitine Uptake Defect	75259	99.2	6	1	1	100.0
Methylmalonic acidemia (Cbl A,B)	75259	99.2	30	0	0	
Glutaric Acidemia Type I	75259	99.2	10	0	0	
21-Hydroxylase Deficient Congenital Adrenal Hyperplasia	75288	99.3	680	3	3	100.0
Medium-Chain Acyl-CoA Dehydrogenase Deficiency	75288	99.3	50	6	6	100.0
Long-Chain L-3-Hydroxy Acyl-CoA Dehydrogenase Deficiency	75259	99.2	3	0	0	
3-Hydroxy 3-Methyl Glutaric Aciduria	75259	99.2	14	0	0	
Methylmalonic Acidemia (Mutase Deficiency)	75259	99.2	30	1	1	100.0
S-Beta Thalassemia	75288	99.3	0	0	0	
Argininemia (Arg)	75259	99.2	75	0	0	
Carbamoylphosphate synthetase deficiency	75259	99.2	1	0	0	
Ornithine transcarbamylase deficiency	75259	99.2	1	1	1	100.0
Hb S/C disease	75288	99.3	8	8	8	100.0
Methylmalonic acidemia (Cbl C,D)	75259	99.2	30	1	1	100.0
Optional Metabolic Pilot Study (11 months)	69758	92.0	37	0	0	
Optional SCID Pilot Screens (11 months)	69190	91.2	256	0	0	

**Performance Measure 02:** *The percent of children with special health care needs age 0 to 18 years whose families partner in decision making at all levels and are satisfied with the services they receive. (CSHCN survey)*

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	70	70	72	59	60
Annual Indicator	57.1	57.1	57.1	57.1	57.1
Numerator					
Denominator					
Data Source				NS-CSHCN, 2005-2006 (part of NCHS/SLAITS)	NS-CSHCN, 2005-2006 (part of NCHS/SLAITS)
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	61	63	65	65	67

**Notes - 2009**

There are no updated state-level data for 2009. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. See note for 2007.

**Notes - 2008**

There are no updated state-level data for 2008. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. See note for 2007.

**Notes - 2007**

There are no updated state-level data for 2007. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. The 95% Confidence Intervals (CI) for the 2005-2006 and 2001 survey, from which the earlier data come, overlap (2005-2006 CI: 52.8-61.3; 2001 CI: 56.4-72.5). The overlap suggests that the figures do not differ statistically (change may be due to random survey variation). Massachusetts is also comparable to the nation. The national figure was 57.4 (CI: 56.5-58.2) for 2005-2006, and the comparable national figure for earlier years was 57.5 (CI: 56.0-59.0).

**a. Last Year's Accomplishments**

See NPMs #3, 4, 5, 6, and 12.

See NPMs #3, 4, 5, 6, and 12.

The Director of Family Initiatives (DFI) and Family TIES continued to recruit Family Advisors to

review materials and provide input into Chapter 171 Family Support Plan and Block Grant updates. 127 self-identified Family Advisors were offered the opportunity to join a database of stakeholders in the CYSHCN system of care who are interested in receiving information about the program. Family members who participated in any advisory functions received stipends and mentoring to support their involvement.

Over 200 family members, including Spanish, Haitian Creole and Eritrean speaking parents provided input through focus groups and surveys around ongoing needs assessment and offered substantial consultation to develop a state mandated "Family Support Plan" to provide flexible supports and enhance community participation.

Over 750 parents attended the Family TIES/EIPLP co-sponsored statewide parent/professional conference and 90 parents gave feedback to a survey asking about unmet and under met public health needs. Families asked for help from the DPH to coordinate and make services from all human service agencies more accessible as well as reiterating the need for easier access to up-to-date information and resources.

The Early Intervention Parent Leadership Project (EIPLP) received 124 calls on its toll free line, and 35,747 website hits, and distributed 6 editions of its newsletter to over 4200 parents and professionals.

Care Coordinators working in medical practices identified and supported 12 Family Consultants (as stipended positions) to serve as part of the Medical Home Team and provide leadership on practice improvement initiatives.

Family TIES and EIPLP offered in-person training and outreach to over 5000 families and professionals, including over 600 Spanish speakers. The Parent-to-Parent program received 63 match requests and was able to complete 54 new matches. Parent-to Parent program coordinator worked with Family TIES Spanish interpreter to translate the Listen and learn training program for mentor parents into Spanish and Chinese and delivered the training to 3 parent groups.

Contacts and collaborations were established with 31 CBOs including presentations at health fairs, parent groups and local public health groups.

Parents and consumers participated in 100% of the UNHSP Advisory Committee meetings. See NPM #12.

Collaborated with NE SERVE and the MA Consortium for CSHCN to ensure the Family-Professional Partners Institute, which had been developed as part of an MCH-funded state implementation grant for CSHCN, could be easily resumed when resources permit. Despite efforts to secure additional resources to continue and expand the FPPI, the FPPI was discontinued due to lack of funding. Institute staff and advisory committee developed a set of recommended steps to be taken, once resources are identified, to further develop the Institute model and promote it nationally.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. The Division for Perinatal, Early Childhood and Special Health Needs (DPECSHN) and its Family Initiatives (FI) Director provide leadership for DPECSHN, BFHN, and other state agency programs to enhance and extend consumer and family participation.				X
2. Increase diversity of family participants, in particular through				X

two FI programs: Family TIES and Early Intervention Parent Leadership Projects (EIPLP).				
3. Hire family members and consumers as paid staff/consultants to the state CYSHCN programs.				X
4. Support parents' active participation in advisory groups, including EI, Universal Newborn Hearing Screening, Family and Professional Partners Institute (FPPI, to FY09), MassCARE and New England Regional Genetics Group (NERGG).				X
5. In collaboration with Family Voices, the Director of Family Initiatives presents information about the MCH Block to family leaders and obtains family input through multiple avenues.				X
6. Provide parent support and training, including stipends, and collaborate with the Federation for CSN, NE SERVE and Consortium to develop parent participation and leadership. Offer parents opportunities to participate in all Family Initiatives.				X
7. Through the Care Coordination Program for CSHCN, increase opportunities in pediatric practices for parent-professional partnering, including development of parent advisory groups and other systems for family participation.				X
8. Require parent participation in School Health Advisory Committees in Essential School Health Services (ESHS) program sites.				X
9. DPEC SHN updates, posts on the web and distributes, a resource and recordkeeping tool, "Directions: Resources for Your Child's Care" to families of CYSHCN and providers, in English, Spanish and Portuguese.				X
10. Survey families and youth accessing DPH-funded services and supports, including Community Support, Family TIES, School Based Health Centers, Essential School Health Services, EI, and MASSTART to assess satisfaction and impact.				X

#### **b. Current Activities**

See Summary Sheet and NPMs #3, 4, 5, 6, and 12.

On-going collaboration with MA Family to Family Health and Information Center - DFI serves on the Advisory Board of the Project and helps support F2F annual conference.

DFI collaborates with staff of E.K. Shriver Center to develop and disseminate training materials around Emergency Preparedness for families of CYSHCN.

DFI works with DPH Office of Health Communication to produce FAQs about H1N1 for families whose children have complex special health care needs.

Skill building activities with ICC parent reps & EI Parent Liaisons, using multiple modalities, to increase their ability to offer input into policy & program development.

OFI staff were actively involved in CYSHCN Program strategic planning & implementation & in developing tools for 2010 Needs Assessment to ensure family-friendly, ease of access.

Collaborated on the development of an on-line survey for families of CYSHCN for 2010 Needs Assessment. Over 450 were returned.

DFI serves as DPH liaison to interagency group working on Chapter 171 planning. Co-presented with this group to families and professionals at two conferences about DPH Chapter 171 Plan.

### c. Plan for the Coming Year

See Summary Sheet and NPMs #3, 4, 5, 6, and 12. Continue ongoing activities.

Continue to build EI Parent Contact Network by providing up to four opportunities for networking and skill building. Assist Parent Contacts to identify and carry out program based projects that increase family involvement.

Provide additional skill building opportunities for EI Parent Liaisons and ICC Parent representatives that assist them to perform current functions as well as extrapolate these skills to other arenas in the special health needs system of care.

Create multiple opportunities for Family Advisors to share their expertise and insights about improving system of care for CYSHCN and their families,

Develop a Family Advisory group for the Pediatric Palliative Care program.

Recruit a second Family Advisor for the Catastrophic Illness in Children Relief Fund (CICRF).

Develop and implement a survey to assess family satisfaction with the CICRF.

An "MDPH Annual Family Support Plan for FY 2011" will be finalized and distributed to the legislature and public, as part of a composite report filed by EOHHS. This plan is in compliance with state Chapter 171 of the Acts of 2002: An Act Providing Support to Individuals with Disabilities and Their Families. The final draft of the MDPH plan, prepared by DPEC SHN, is attached to this section.

The Care Coordination program, working with new practices, will continue to promote the Family Consultant model in its Medical Home project.

Continue ongoing ESHS client satisfaction survey on schedule to survey one-third of districts annually.

The SBHC program will recommend to sites that they survey parent and school staff satisfaction, as well as client satisfaction.

**Performance Measure 03:** *The percent of children with special health care needs age 0 to 18 who receive coordinated, ongoing, comprehensive care within a medical home. (CSHCN Survey)*

#### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective	65	65	67	47	49
Annual Indicator	45.7	45.7	45.7	45.7	45.7
Numerator					
Denominator					
Data Source				NS-CSHCN, 2005-2006 (part of NCHS/SLAITS)	NS-CSHCN, 2005-2006 (part of NCHS/SLAITS)
Check this box if you cannot					



report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	51	53	55	57	60

#### **Notes - 2009**

There are no updated state-level data for 2009. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. See note for 2007 re non-comparability to pre-2005 data.

#### **Notes - 2008**

There are no updated state-level data for 2008. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. See note for 2007 re non-comparability to pre-2005 data.

#### **Notes - 2007**

There are no updated state-level data for 2007. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. Questions used for the 2005-2006 survey changed substantially and results cannot be compared to 2004 or earlier. The comparable national figure was 47.1% (CI: 46.3-48.0) for 2005-2006. The CI for Massachusetts for 2005-06 was 41.4-50.0, suggesting no statistical difference between Massachusetts and the nation.

#### **a. Last Year's Accomplishments**

Care Coordinators were co-located in 10 pediatric primary care practices across the state as part of its Medical Home Project, to promote the medical home model. Care Coordinators for CYSHCN provided care coordination services to (473) families of CYSHCN statewide in FY09. Care coordinators help physicians provide family-centered care, develop care plans and establish office systems to improve quality of care. They identified and referred CYSHCN; helped families optimize insurance coverage, access public benefits, find parent to parent support, and become better advocates; attend school meetings; assist with transition activities. and medical home were included in quarterly newsletters.

Staff from the Care Coordination Program and EI PLP participated in the Western MA Medical Home Consortium.

The CYSHCN Program's Action Team on systems of care developed two fact sheets on Medical Home; one for Providers and one for Families.

The Care Coordination project held its second annual Conversations in Medical Home Best Practices day-long meeting. Existing and former Medical Home team members (families, practice staff including nurses, social workers, physicians) attended, for a total of 32 providers and 9 parents.

The Title V, Care Coordination, and FI Directors participated in MA EOHHS planning (and grant submission) to develop medical home in community health centers in MA for all populations DPH and EOHHS staff, providers, and parents participated in the Medical Home/Life Course

Perspective training as part of the Title V Knowledge to Practice Technical Assistance by BU.

A Family Partner continues to work with a 17-member, community-based pediatric practice, to implement family involvement, care coordination and support around transition as part of FPPI.

Family TIES coordinators support community pediatric practices with information and referral and provide training as requested around family participation and transition.

School nurses (ESHS) arranged 102,167 primary care appointments for students during the school year; about 7.6% of referrals were for students who did not yet have providers.

The MA School Nurse Research Network implemented several studies: (a) school nurse intervention to remind students with life-threatening allergies to carry their Epi-Pens, (b) phase one of a survey to determine school nurse's understanding of asthma issues, and (c) focus groups of pediatricians to determine the best ways to collaborate and communicate with school nurses. In addition, a joint grant with Children's Hospital Medical Center was submitted to the Noonan Foundation to explore the psychological issues of children with life threatening allergies.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. DPECSHN Care Coordinators for CSHCN, housed in primary care practices and DPH Regional Offices, respond to referrals from the practices and community sources and help practices develop components of a medical home model.		X		X
2. All BFHN programs serving children screen/refer for a regular primary care provider.		X		
3. DPECSHN programs (including EI, MASSTART, Medical Review Team, CICRF, Pediatric Palliative Care, and Community Support) assess and link CYSHCN with care coordination and medical homes, if needed.		X		X
4. DPECSHN programs and others in BFHN are charged to maintain effective coordination and collaboration with child's existing medical home.		X		X
5. DPECSHN collaborates with primary pediatric practices both hospital-based and Federally-qualified community health centers to promote medical home concept.		X		X
6. MassCARE Program offers care coordination services and links to primary and specialty care to all enrolled HIV-infected children and youth statewide through 7 community-based settings.				X
7. DPECSHN distributes a resource and recordkeeping tool, "Directions: Resources for Your Child's Care" to families of CYSHCN and providers, in English, Spanish and Portuguese, which helps parents build and use a medical home for their child.				X
8. DPECSHN staff participate in the New England Regional Genetics Group (NERGG) medical home workgroup.				X
9. UNHSP staff verify that children referred through newborn hearing screening are linked to a PCP and staff work with the PCPs when families are at risk of not getting to follow-up audiological services.		X		X
10.				

**b. Current Activities**

See Summary Sheet and NPMs #1, 2, 4, 5, 6 and 12.

Care coordinators for CYSHCN, are located in 10 pediatric primary care practices across the state, including 9 community health centers. Parent Consultants have been identified to support the medical home model are supported through stipends and training at 8 practices.

The Care Coordination Statewide Supervisor, Care Coordinators, and a staff member from the EI PLP actively participate in the Western MA Medical Home Consortium.

Medical Home Fact Sheets for families and providers are being translated into Spanish and will be distributed.

The Care Coordination Program is planning collaboration efforts with the EOHHS Medical Home demonstration project to spread medical home across all populations in community health centers, including two where DPH Care Coordinators are located.

The Essential School Health Service Performance Improvement (evaluation) Committee, comprised of 25 nurse leaders that meet monthly, had several relevant FY10 studies: 1) a performance improvement project that includes parent education on the triggers of asthma to determine if health room office visits decrease; and 2) a performance improvement project on diabetes care in the schools, including a review of standards and data collection on the amount of time needed to manage a child newly diagnosed with Type 1 diabetes.

**c. Plan for the Coming Year**

See NPMs #1, 2, 4, 5, 6 and 12. Continue ongoing activities.

BFHN will continue to participate actively with EOHHS and MassHealth in developing a state plan and policy for implementing the medical home concept for all age groups. New funding has been awarded to Massachusetts by the Commonwealth Fund. Additional fiscal and human resources will be dedicated to this work, which will complement the MassHealth/EOHHS effort.

Care Coordination program will present its model at the EOHHS/Health Center project upcoming learning Collaborative meeting.

Collaboration among DPECSHN programs serving CYSHCN will continue with practice staff to enhance the role of care coordination, levels of service, and build the components of medical home in practices.

Care Coordination Medical Home Project will issue a Request for Information to identify new practices for the third phase of the project, and will place Care Coordinators in 6-8 new pediatric practices to provide training, technical assistance to develop the medical home model.

An annual training meeting "Best Practices in Medical Home" will be held for former and new (Care Coordination Program) medical home practice providers to share successes, best practices and strategies for integrating and sustaining the model.

SBHC program staff will conduct at least 10 site visits to thoroughly review medical charts and individualized care plans for patients with special health care needs. Medical chart abstraction criteria include: 1) documentation of collaboration among specialty care providers 2) evidence of appropriate referrals and 3) communication between PCP and specialists demonstrating continuity of care without service duplication. Charts sampled at each site will include 2

documenting chronic care services (e.g. asthma, diabetes) and 2 documenting mental health services (including screening, identification, treatment, referral, and care coordination services).

**Performance Measure 04:** *The percent of children with special health care needs age 0 to 18 whose families have adequate private and/or public insurance to pay for the services they need. (CSHCN Survey)*

#### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	65	70	70	64	65
Annual Indicator	63.1	63.1	63.1	63.1	63.1
Numerator					
Denominator					
Data Source				NS-CSHCN, 2005-2006 (part of NCHS/SLAITS)	NS-CSHCN, 2005-2006 (part of NCHS/SLAITS)
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	75	75	80	80	85

#### Notes - 2009

There are no updated state-level data for 2009. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. See note for 2007 for additional information.

Based on assumptions of the continued progress of health care reform in Massachusetts and nationally, we continue to project significant improvements over time.

#### Notes - 2008

There are no updated state-level data for 2008. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. See note for 2007 for additional information.

Based on assumptions of the continued progress of health care reform in Massachusetts and nationally, we are projecting a larger improvement by 2013.

#### Notes - 2007

There are no updated state-level data for 2007. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. The 95% Confidence Intervals (CI) for the 2005-2006 and 2001 survey, from which the earlier data come, overlap (2005-2006 CI: 59.0-67.2; 2001 CI: 60.1-70.1). The overlap suggests that the figures do not differ statistically (change may be due to random survey variation). Massachusetts was also comparable to the nation at the time of the survey. The national figure was 62.0 (CI: 61.2-62.8) for 2005-2006, and the comparable national figure for earlier years is 59.6 (CI: 58.7-60.5).

#### **a. Last Year's Accomplishments**

See also NPMs #1 and 13.

The SSI/Public Benefits Program provided 15 training programs to 212 participants statewide of which 31% were parents. Others trained included community health providers, nurses, Early Intervention staff, case managers, pediatricians, graduate students/fellows, occupational and physical therapists and child state agency staff. Most technical assistance calls related to SSI/Public Benefits were by the Community Support 800#. Nevertheless, the Public Benefits specialist responded to 75 calls for technical assistance, 49% of which were from parents.

By phone or email, the Community Support 800# responded to 1,666 technical assistance requests, of which 51% (849) were from parents. Community Support staff sent mailings to 200 families upon request with information and applications for public insurance programs.

The CICRF provided approximately \$2.28 million in financial assistance to 261 families of CSHCN with extraordinarily high out-of-pocket medical or related expenses in relation to family income (expenses exceed 10% of family income). As a payor of last resort, CICRF assisted families with payment for needed items and services not covered by insurance, including home and vehicle modifications. CICRF also negotiated with insurers or located alternate resources for additional families, obviating the need for CICRF funding and assisting families who did not meet the 10% of income requirement.

An FY09 amendment to the CICRF statute allowed for more staff to review applications to the Fund.

During FY09, 19 uninsured or underinsured clients received special foods assistance through PKU Special Medical Foods Program.

DPH Care Coordinators assisted 281 families through the Flexible Family Support Fund to reimburse costs of goods and services. Eligible expenses relate to raising a child with special health care needs. These expenses tend not to be medical in nature and are therefore not covered by regular health insurance.

Of children in EI, 97% have private and/or public health insurance. The remaining 3% receive state-funded EI services, and assistance is provided by EI staff to assess, as appropriate, public health insurance benefits.

816 families accessed durable medical equipment through the statewide Regional Consultation Programs (RCP) Equipment Loan Program.

The Pediatric Palliative Care Network (PPCN) contracted with 11 hospices in FY09 to provide palliative care services statewide for children with life-limiting illness and their families, covering services not otherwise covered by insurance. Unlike public benefits for hospice care, PPCN funding does not require that treatment toward a cure be suspended, that the child have a 6-month prognosis, or that child no longer receive care by his/her current medical caregivers. PPCN provided \$706,850 in services for children and families. 205 children were served (and others referred to appropriate services) during the year. An additional 420 members of the

families of these children (parents, siblings, and others) also received services. A total of 202 families received services. PPCN capacity was expanded with the addition of two new providers in the southeastern region of the state.

In response to families' reports that the system for acquiring durable medical equipment (DME) overburdens and under-serves families, and following a report completed in FY08, the MA Consortium for CSHCN worked with state legislators to craft and submit a bill to explore why the process of obtaining DME is so often problematic for families. Bill would establish a commission to recommend guidelines for private health insurers, MassHealth and vendors to promptly process prescriptions for durable medical equipment for children.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. All BFHN and other DPH programs with direct family contact are required to screen for health care access and insurance, make referrals and assist with enrollment and access.		X		
2. The SSI/Public Benefits Coordinator trains providers and families of CYSHCN on eligibility, application processes and appeals for SSI, CommonHealth, Kaileigh Mulligan and MassHealth, and participates in related state-level coalitions/groups.		X		X
3. DPH Family Support Fund helps families of CYSHCN pay for expenses related to their child's special health care needs that are not covered by health insurance or public benefits.		X		
4. The Catastrophic Illness in Children Relief Fund (CICRF) serves as a payor of last resort for eligible families of CYSHCN with extraordinary out-of-pocket medical and related expenses not covered by insurance or other sources.	X	X		
5. The CICRF refers and provides technical assistance to access other resources (such as MassHealth; CommonHealth; MA Assistive Technology Loan Program; Home Modification Loan Program), assisting families eligible and not eligible for CICRF funding.		X		
6. The Pediatric Palliative Care Network provides services not covered by insurance to reduce pain and other symptoms, improve quality of life, and provide end-of-life care for children with life-limiting illness and their families.	X	X		
7. DPH Care Coordination for CSHCN provides families with assistance with accessing and optimizing health insurance benefits. Care Coordinators provide trainings on benefits and services regionally and in pediatric practice sites.		X		X
8. State law mandates health care plans to cover newborn hearing screening and diagnostic follow-up and the state funds hearing aids for low income, uninsured or underinsured children.				X
9. Participate in the Children's Health Access and the Covering Kids & Families coalitions, which assess the percent of the population receiving adequate health coverage and actively monitor the effect of health reform on children, especially CYSHCN.				X
10. The Community Support 800# provides information and technical assistance about insurance programs for which families		X		X

may be eligible and about programs that offset health costs not covered by insurance.				
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#### **b. Current Activities**

See also Summary Sheet and NPMs #1 and 13.

SSI and Public Benefits and Training, Care Coordination, EI, EIPP, school health and school-based health centers, FOR Families, Pediatric Palliative Care and community health center based programs are key venues for health insurance access for CSHCN.

The PPCN RFR was reopened to provide better coverage for families in the metro-Boston region.

The PPCN is contracting with the Regional Consultation Program to improve outreach to and education about pediatric palliative care services to the infant to families of children birth to 3 statewide.

The Title V Director represents DPH on the EOHHS Children's Behavioral Health Initiative (CBHI) to provide increase coverage for behavioral health services.

The Title V Director actively participates at Executive and Implementation levels in the EOHHS Children's Behavioral Health Initiative (CBHI) to promote increased coverage for developmental and behavioral services by all insurers.

CICRF modified some of its policies to address potential shortfall. Transfers into CICRF from the Medical Security Trust Fund (MSTF) have been suspended due to lack funds in the MSTF -- a result of economic downturn. CICRF is currently operating on reserves from previous years. Elimination of some areas of coverage and reductions in reimbursement amounts were made, without impacting eligibility, in order to continue to serve as many families as possible and sustain the Fund until transfers are resumed.

#### **c. Plan for the Coming Year**

See also NPMs #1 and 13. Continue ongoing activities.

Monitor impact of state and federal Health Care Reform on insurance coverage for CYSHCN and continue to assure current levels of and identify gaps in coverage.

CICRF will continue to monitor requests and expenditures closely and make any necessary adjustments to policies to ensure sustainability of Fund. The CICRF Commission may explore additional source of funds in order to keep the CICRF in operation until transfers from the Medical Security Trust Fund resume.

If funding and staffing allow, CICRF will undertake an expanded outreach campaign in FY11, in order to increase awareness of the Fund as a resource for families with extraordinary medical and related expenses uncovered by any other private or public source.

PPCN will increase marketing and community outreach activities in order to serve more eligible families. Each PPCN provider will be required to develop their marketing and community outreach strategies and objectives. Perinatal Palliative and Hospice Care has been identified as a significant need and opportunity for PPCN to serve families that often have no other resources or support.

See Summary Sheet items 4, 5, and 6 (related to CICRF and PPCN)

The SBHC program will collaborate with the MDPH Care Coordination Program to implement a

pilot project in one community within 4 SBHCs. The project will attempt to demonstrate the mutual benefit to parents, CYSHCN and clinical providers of co-locating 'care coordinators' within school-based health centers. Providing these coordination services within schools should enhance the systems capacity to identify families and CYSHCN who are eligible for services. Additionally, SBHC clinicians will receive additional training on identifying children/youth with mental health problems and/or behavior problems that could receive CBHI-sponsored Medicaid coverage of specialized services needed to enhance or optimize their functioning. These services could include intensive care coordination for children/youth with serious emotional disorders (using the wraparound service model).

**Performance Measure 05:** *Percent of children with special health care needs age 0 to 18 whose families report the community-based service systems are organized so they can use them easily. (CSHCN Survey)*

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	80	81	81	87.6	89.2
Annual Indicator	87.6	87.6	87.6	87.6	87.6
Numerator					
Denominator					
Data Source				NS-CSHCN, 2005-2006 (part of NCHS/SLAITS)	NS-CSHCN, 2005-2006 (part of NCHS/SLAITS)
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	89.2	90	90	91	91

**Notes - 2009**

There are no updated state-level data for 2009. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. See note for 2007 re noncomparability of data to 2004 and earlier.

**Notes - 2008**

There are no updated state-level data for 2008. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. See note for 2007 re noncomparability of data to 2004 and earlier.

**Notes - 2007**

There are no updated state-level data for 2007. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS.



Data for 2004 and earlier are from the NS-CSHCN conducted in 2001. The wording, placement, and ordering of questions changed substantially in the 2005-2006 administration of the survey, and the results are not comparable across survey years. The 95% Confidence Intervals (CI) for the 2005-2006 for Massachusetts was 84.7-90.5; for the nation, it was 88.6-89.6 (point estimate 89.1). The CI's overlap; there was no statistical difference between Massachusetts and the nation (differences may be due to random survey variation).

#### **a. Last Year's Accomplishments**

See also NPMs #1, 2, 3, 4, 6, and 12.

DPECSHN's centralized Community Support Line fielded information and referral calls, provided 800# service to 1,666 callers of whom 849 were parents in FY09. The 800# Resource Specialist staff serve as a resource statewide to direct families and providers to DPECSHN, other DPH and state and community-based services.

Family TIES received 1464 calls, had a total of 9913 contacts with families and professionals and 892,859 hits on its website. Staff distributed 5400 brochures in English, Spanish and Portuguese, 1008 Resource Directories and a variety of tip sheets on topics such as autism, mental health, medical home and transition.

Continued participation by DFI and staff of Family TIES in the CYSHCN strategic planning process offering insights and "reality checks" about family needs.

Responded to requests from several states to share materials related to the Family-Professional Partners Institute.

Care Coordination and Family TIES staff collaborated with community programs to sponsor "Understanding Services for Children and Youth with Special Health Care Needs" (previously called "Navigating the Maze") in each state region to share information about resources and systems of care with families and providers.

School-based Health Centers, which serve many CYSHCN, have program standards that address continuity of care, access, consent policies, and parent participation. Additional sub-categories of standards include the requirement to accommodate working parents.

School nurses reported to ESHS providing CYSHCN substantial services at school, including, per month, about 6,275 scheduled (vs. "as needed") doses of medication and over 90,000 SHN-related treatments or procedures (highest being blood glucose testing delivered at a rate of 56.7 procedures per month per 1,000 students). These figures greatly underestimate services, notably for asthma, for which nurses gave nearly 16,780 "as needed" doses per month of prescription medications, and for conditions requiring epinephrine, which nurses administered an average of 8,192 times per month "as needed." For FY09, ESHS schools reported over 4.38 million student-nurse encounters and about 28% of students reported to the school nurse as CYSHCN.

Co-hosted with the MA Consortium for CSHCN an invitational meeting of key stakeholders to seek input into DPH systems building activities. Thirty-three child health leaders in MA gathered to identify top priorities for investment to improve systems of care for CYSHCN and their families.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. All DPECSHN programs support families to more easily access resources, develop external collaborations for this		X		X

purpose, and assess barriers in conjunction with consumers, parents, and providers. Telephonic interpreters and TTY are available.				
2. Family Initiatives (FI) programs (Family TIES and EIPLP) provide information, support families and partner with community-based services and health care organizations to improve access.		X		X
3. The Community Resource Program provides I&R and technical assistance to families and providers using its 800# and, through this centralized service, coordinates access to multiple CYSHCN programs for CYSHCN and their families.		X		X
4. DPH Care Coordinators are based in several large pediatric primary care practices across the state with additional Care Coordinators in regional offices serving CYSHCN who are outside the designated practices.		X		X
5. Disseminate printed and electronic resources (e.g., Family TIES directory, Directions) and increase resources in multiple languages (e.g., Spanish and Portuguese sections of directory and 2 articles in Spanish in each issue of the EIPP newsletter).		X		X
6. Technical assistance to families and schools, in particular through MASSTART, allows medically complex CYSHCN to attend public school.				X
7. DPEC SHN staff participates actively in the MA Consortium for CSHCN and its Steering Committee, Massachusetts AAP, community-based coalitions, and other forums to encourage ease of access.				X
8. MassCARE offers a community-based system of care for infants, children, and adolescents with HIV and their families to enable families to access care from local providers and not only major pediatric hospitals.		X		X
9. FI and other DPEC SHN programs conduct periodic focus groups and surveys to gather current information from parents about barriers and facilitators of access.				X
10. DPH Care Coordinators facilitate regional trainings on benefits and services for CYSHCN for parents and providers.				X

#### **b. Current Activities**

See also Summary Sheet and NPMs #1, 2, 3, 4, 6, and 12.

Activities to implement effective collaboration across DPH direct service programs - Family TIES, Community Support Line Unit and Care Coordination.

Family members provide input regarding ease of access to and consumer friendly nature of needs assessment on-line survey and new CYSHCN program brochure

On-going participation on EMSC Advisory Board, Massachusetts Developmental Disabilities Council, Institute for Community Inclusion, UNHS and Birth Defects Advisory councils to share the perspectives of families whose children have special health needs.

Outreach to families to become part of an external constituency database for the CYSHCN Program to receive information and identify involvement opportunities. Outreach also to providers and others with an interest in improving systems of care for CYSHCN and their families.

Participation on Advisory Board of Physician Practice Organization at Children's Hospital Medical Home initiative including sharing materials and resources to expand family engagement.

Development of "Connecting the Dots," an on-line transition training for families and providers serving young children that reflects best practice.

MOU and data sharing agreement in place to facilitate transition of children from EI to the Commission for Deaf and Hard of Hearing.

### c. Plan for the Coming Year

See also NPMs #1, 2, 3, 4, 6, and 12. Continue ongoing activities.

Continued collaboration with DPH Care Coordination program to grow opportunities for family involvement through primary care practices

Work with LEND Program at Children's Hospital to develop and implement a Family Leadership Curriculum.

Continue to promote medical home activities with contracted primary care practices, and through participation on advisory committees, emphasizing family engagement and ease of access.

Translate, print and broadly disseminate CYSHCN Program Guide, to assist increase knowledge about the programs available to families of CYSHCN and how to access them. Seek additional family/consumer input into all new CYSHCN Program materials to ensure ease of access.

Identify and utilize a variety of methods to gain family input including on-line and social networking.

Continue focus on activities to support families of CYSHCN during extraordinary life events and transitions.

**Performance Measure 06:** *The percentage of youth with special health care needs who received the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence.*

### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective	10	10	15	46.6	47
Annual Indicator	46.6	46.6	46.6	46.6	46.6
Numerator					
Denominator					
Data Source				NS-CSHCN, 2005-2006 (part of NCHS/SLAITS)	NS-CSHCN, 2005-2006 (part of NCHS/SLAITS)
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is					

fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	48	49	50	50	51

#### **Notes - 2009**

There are no updated state-level data for 2009. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. See note for 2007 re noncomparability of data to 2004 and earlier.

Improving transitions to adulthood - and the adult health care system – especially for CYSHCN remains a priority for MDPH.

#### **Notes - 2008**

There are no updated state-level data for 2008. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. See note for 2007 re noncomparability of data to 2004 and earlier.

Improving transitions to adulthood - and the adult health care system - is a priority for MDPH for all children.

#### **Notes - 2007**

There are no updated state-level data for 2007. Data are from the National Survey of Children with Special Health Care Needs (NS-CSHCN), 2005-2006 conducted as part of NCHS/SLAITS. Data for 2004 and earlier are from the NS-CSHCN conducted in 2001. The wording, placement, and ordering of questions changed substantially in the 2005-2006 administration of the survey, and the results are not comparable across survey years. The 95% Confidence Intervals (CI) for the 2005-2006 for Massachusetts was 39.8-53.4; for the nation, it was 40.0-42.5 (point estimate 41.2). The CI's overlap, indicating no statistical difference between Massachusetts and the nation (differences may be due to random survey variation).

#### **a. Last Year's Accomplishments**

Care Coordinators implemented standards for their roles with the health care transition process for enrolled youth ages 14-22.

Due to staffing and funding limitations, the role of Coordinator of Youth Transition Initiatives was discontinued.

Due to staffing and funding limitations the Young Adult Advisory Council (YAAC) no longer met in person. Still, former YAAC members continued to engage in activities to distribute and promote the DVD they developed for health care providers and policymakers as part of the state's earlier MCHB-funded CYSHCN state implementation grant. YAAC members participated in several panels and forums in which they shared their experiences and provided recommendations and suggestions around systems of care for CYSHCN and disabilities. In 11/08 YAAC members did a Department-wide presentation for DPH staff, which began by viewing the DVD, "We Are Able: Perspectives of Transitioning Young Adults with Disabilities." In 12/08 a YAAC member arranged for the DVD to be shown and for her another member to be interviewed on a local cable television station. In 3/09 YAAC members presented a workshop and showed the DVD at the Federation for Children with Special Needs' annual Voices of Community conference.

The SSI/Public Benefits Coordinator provided information and referral resources and training for agencies serving transitional youth. She participated on the state Advisory Council for Special

Education and the Special Education Steering Committee regarding Federal compliance issues, which monitors and addresses issues regarding transition planning for students to post-secondary education or work.

Conducted a healthy sexuality education needs and resource assessment for youth with disabilities, to be used for program planning and policy development, as part of DPH Sexual Violence Prevention Plan. Three surveys were developed and implemented; responses were received by 27 youth with a range of disabilities, 58 parents of youth with disabilities, and 113 providers who work with them.

Planet Health (Healthy Choices) and Eat Well-Keep Moving programs included a disability screener to identify teachers who work with youth with disabilities participating in the programs, in 5 middle schools and 12 elementary schools.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Promote the concept of “health transition” and DPH as a focal point for health transition.				X
2. Build external linkages and collaborations with agencies and organizations serving youth, including youth with special health care needs, to ensure health-related transition issues are incorporated into other transition planning efforts.				X
3. Include focus on youth with disabilities and chronic conditions in DPH youth initiatives, e.g. school-based health centers, violence prevention, tobacco, health promotion, suicide prevention and healthy weight.				X
4. DPH Care Coordinators work with parents, youth and other agencies to promote smooth health transition, including transition to adult medical care, and maximize youth autonomy in relation to self-management of health.		X		X
5. . SSI/Public Benefits Coordinator and Community Support Program staff provide resources, technical assistance and training for agencies serving transition-age youth.		X		X
6. DPH Care Coordinators, Family Initiatives staff, and Community Support Program staff offer formal and informal training and technical assistance on transition to families and providers (English and Spanish).				X
7. School-Based Health Center (SBHC) programs for teens with chronic health problems and Essential School Health Services (ESHS) nurses foster responsibility and self-care and promote transition activities.		X		
8. As part of the state Sexual Violence Prevention Plan, collaborate with the Department of Developmental Services to promote healthy sexuality and relationships for people with developmental disabilities and their service systems.				X
9. MassCARE provides trainings on health care transition for youth with HIV and for their providers and caregivers, to facilitate transition; outcomes are also used to inform service system decisions for the MassCARE program and for other providers serv		X		X
10.				

**b. Current Activities**

See Summary Sheet and NPMs #2, 3, 4, and 5.

The Family TIES "Ladder of Success" Transition Training for Youth with Special Health Care Needs was offered to 30 young adults.

MassCARE planned and delivered a series of trainings on health care transition for children with HIV. Separate trainings were held for providers, youth and caregivers. 53 pediatric and adult care providers, 20 youth ages 15-22, and 12 caregivers attended the trainings.

BFHN works with the EOHHS Assistant Secretary for Disabilities to strengthen activities across multiple state agencies providing services to individuals with disabilities to facilitate transition between agencies.

DPH works with DDS and the Disabled Persons Protection Commission to create opportunities for cross-training, such as joint provider meetings and workshops, to build DDS providers' and DPH rape crisis center and family planning providers' capacity for the promotion of healthy sexuality/relationships among people with developmental disabilities.

The DPH Sexual Assault Prevention and Survivor Services program distributes brochures for parents of youth with disabilities on healthy sexuality and preventing sexual exploitation.

**c. Plan for the Coming Year**

See also NPMs #2, 3, 4, and 5.

Continue activities on Summary Sheet.

Develop and begin to implement a DPH Youth Transition Initiatives Plan for addressing transition of youth with special health care needs and disabilities, with a focus on health transition.

Hire or re-assign current staff to oversee DPH Youth Transition Initiatives.

MassCARE will develop and distribute a toolkit (in print and on the web) on health care transition for children with HIV.

Implement method for incorporating youth input without regular in-person YAAC meetings. If funding allows, we plan to re-energize and expand the YAAC and re-establish regular in-person meetings.

HADU will develop a strategic plan for health and disability with a focus on youth with disabilities not smoking and addressing obesity.

HADU in collaboration with NPAU will identify ways to integrate youth with disabilities into the statewide Mass in Motion initiative to increase the number of youth with disabilities with access to health promotion opportunities.

Using information and input received from a DDS provider needs/resource assessment survey, conducted by DDS in FY10, the Sexual Assault Survivor Services (SAPSS) program will continue to work with DDS to develop plans to increase knowledge of healthy sexuality/healthy sexual behavior among people with developmental disabilities; increase knowledge of healthy sexuality/healthy sexual behavior among DDS staff and parents/guardians of DDS clients to ensure that the environments in which people with developmental disabilities live, work, and

recreate are safe and support healthy sexual behavior; and establish new DMR policies that will improve the sexual health and safety of DDS clients.

Complete development of resource guide for youth with disabilities, parents and providers regarding healthy relationships and sexuality for CYSHCN. Resource guide will be designed to provide information and offer a list of supports, services and organizations to help answer questions regarding sexuality for youth with disabilities, in order to promote healthy and safe attitudes and beliefs about sexuality and help youth with disabilities enjoy healthy and fulfilling lives.

The PPCN will establish a protocol as part of the standards of operation to identify adult services for youth who will 'age out' of the program on their 19th birthday. This protocol will ensure appropriate health services and facilitate continued support of young adults and their families.

For all 36 SBHCs, efforts will be made to develop partnerships and augment access to community-based resources for youth with special health care needs. The pilot project (previously described) will include a focus on transitions for families and CYSHCN.

**Performance Measure 07:** *Percent of 19 to 35 month olds who have received full schedule of age appropriate immunizations against Measles, Mumps, Rubella, Polio, Diphtheria, Tetanus, Pertussis, Haemophilus Influenza, and Hepatitis B.*

#### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	88.1	91.3	90	89	84.1
Annual Indicator	91.3	89.2	88.3	84.1	87.7
Numerator					
Denominator					
Data Source				CDC, NIS	CDC, NIS
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Final
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	88	89	89	90	90

#### Notes - 2009

Fully immunized corresponds to the CDC definition of 4:3:1:3:3 (4 or more doses of DTP, 3 or more of poliovirus, 1 or more of any MMR, 3 or more of Hib, and 3 or more of HepB) by age 19-35 months (age 3). [Note that definition of measure in Detail Sheet differs from the label on the measure which suggests immunization status among children 19-35 months of age. That age range is what we report here.] Data are from the National Immunization Survey, as reported by the CDC at [http://www.cdc.gov/vaccines/stats-surv/nis/data/tables\\_0809.htm](http://www.cdc.gov/vaccines/stats-surv/nis/data/tables_0809.htm). Because the percentage rates are generated by the NIP from surveys, no numerators and denominators are presented in Form 11.

Our fully immunized rate improved in 2008-2009 after 2 years of slipping slightly and

Massachusetts had the highest rate in the country, well above the national average of 75.0%. However, the rate remains below what it was in FY05 and our performance targets remain adjusted.

#### **Notes - 2008**

Fully immunized corresponds to the CDC definition of 4:3:1:3:3 (4 or more doses of DTP, 3 or more of poliovirus, 1 or more of any MMR, 3 or more of Hib, and 3 or more of HepB) by age 19-35 months (age 3). [Note that definition of measure in Detail Sheet differs from the label on the measure which suggests immunization status among children 19-35 months of age. That age range is what we report here.] Data are from the National Immunization Survey, as reported by the CDC at [http://www.cdc.gov/vaccines/stats-surv/nis/data/tables\\_0708.htm](http://www.cdc.gov/vaccines/stats-surv/nis/data/tables_0708.htm). Because the percentage rates are generated by the NIP from surveys, no numerators and denominators are presented in Form 11.

Our fully immunized rate dropped again in 2007-2008. Although Massachusetts continues to have a very high rate well above the national average of 79.8%, it is now only ranked #5, down from second in the country last year. Future year Objectives have been adjusted downward to reflect the intensified work needed to improve follow-up and completion rates.

#### **Notes - 2007**

Fully immunized corresponds to the CDC definition of 4:3:1:3:3 (4 or more doses of DTP, 3 or more of poliovirus, 1 or more of any MMR, 3 or more of Hib, and 3 or more of HepB) by age 19-35 months (age 3). [Note that definition of measure in Detail Sheet differs from the label on the measure which suggests immunization status among children 19-35 months of age. That age range is what we report here.] Data are from the National Immunization Survey, as reported by the CDC at <http://www.cdc.gov/nip/coverage/default.htm>; Table 09. Because the percentage rates are generated by the NIP from surveys, no numerators and denominators are presented in Form 11.

Although our fully immunized rate dropped slightly in 2007, Massachusetts continues to have a very high rate (second best in the country after New Hampshire) and well above the national average. However, increased parental resistance to some immunizations has led us to adjust our future year Objectives slightly downward to more realistic levels.

#### **a. Last Year's Accomplishments**

According to the recent CDC's U.S. National Immunization Survey (NIS) Q1/2008-Q4/2008, Massachusetts has improved over the previous survey results and ranked # 1 in the nation for the 4:3:1:3:3:1 series with 82.3% compared to the national average of 76.1%. We also ranked # 1 in the nation for the 4:3:1:3:3:1:4 series with 76.2% compared to the national average of 68.4%. This was the first year that CDC required 3 or more doses of PCV7 in addition to the 4:3:1:3:3:1 series to be considered Up-To-Date. For the 4:3:1:3:3 series Massachusetts ranked # 3 with 83.9% compared to the national average of 78.2%. However, Mass. has surpassed all other states in meeting the CDC's requirements for 2009 immunization assessments by age 24-35 months (through age 2). [Note -- these numbers and details differ slightly from those shown for the performance indicator table; the data for that table are from the latest NIS 2008-2009 data.]

The MCH Immunization Program, within the Bureau of Community Health Access and Promotion (BCHAP), works closely with the Massachusetts Immunization Program (MIP) in the Bureau of Infectious Disease Prevention, Response & Services. The Bureau collaborates with comprehensive primary care provider agencies serving women and their families (typically community health centers) and local home visiting programs. During FY09, immunization assessments were conducted at contracted federally qualified health center sites due for vaccine assessment and chart review. Due to a change by CDC, the frequency of visits were increased from every three years to four years for a site who meets the threshold level of 80% of children up to date by 24 months of age. Sites that do not meet the threshold are assessed annually. Of the 31 sites overseen by the MCH Immunization Program, 28 did not need to be assessed in FY09



and of the remaining sites, 2 out of 3 did not meet the threshold.

The Immunization In-Services for outreach workers, community health center staff, and BCHAP program staff were offered in four regions; 126 nurses attended and received CEU's. Providing CME/CEU's has a direct impact on attendance. In total, 218 packets were distributed to attendees and mailed out to sites that were unable to attend.

The MCH Immunization Program ensures that Bureau program sites are on the immunization information mailing list for outreach. This list includes Early Intervention Partnerships Program, F.O.R. Families, Essential School Health Services, School Based Health Centers, Children with Special Health Care Needs, local community based programs and health education programs.

MCH IP continues to collaborate with the immunization staff of the Boston Immunization Program to better coordinate assessments when possible and follow-up activities for contracted sites in Boston.

The MCH IP in collaboration with MIP conducted an Employee Flu Clinic in December 2008. A total of 186 people were screened and received Flu Vaccine.

The MCH Immunization Program collaborates closely with Essential School Health Services (ESHS) and School Based Health Centers (SBHC) to ensure dissemination of the most current immunization information. Immunization information is forwarded to ESHS on a regular basis as well as answering questions by school nurses and providing them with resources. SBHC provide access to comprehensive services including immunizations in a health center located in a school. This facilitates children and youth being served who would otherwise not seek health care. In particular, this school-based access to immunization facilitates school entry for newly arrived children including immigrant and refugee children who may not possess vaccine records upon arrival.

The Essential School Health Services unit was instrumental in planning and providing H1N1 training to school nurses across the state in many regions. There was also collaboration between School Based Health Center program managers and lead school nurses regarding the planning and implementation of school clinics for H1N1. The MCH Immunization Coordinator participated in this initiative and attended an orientation session for school nurses.

The MCH IPC attended quarterly Immunization Initiative Meetings at MCAAP.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. All BFHN and BCHAP programs that serve families of infants and young children assess for health care access and the child's immunization status. Referrals and assistance are offered to families of children who are not fully immunized.		X		X
2. All WIC children receive an immunization assessment at each WIC appointment until the primary series of shots has been completed.		X		
3. The MCH Immunization Program (MCH IP) promotes regular immunization assessments in all programs and compliance with immunization schedules.				X
4. BCHAP MCH IP staff work closely with the Massachusetts Immunization Program (MIP) in DPH's Bureau of Infectious Disease Prevention, Response and Services to ensure that programs have regularly updated information.				X

5. EIPP, A Helping Hand: Mother to Mother (AHH) and FOR Families, serving high-risk families, promote well-child care, including immunizations, coordinate and facilitate immunization knowledge and tracking.		X		X
6. EI programs provide information on immunization to all families and refer when indicated.		X		X
7. Child care providers provide information on immunization to all families and refer when indicated.				X
8. MCH IP staff meets routinely to coordinate a plan to address failed immunization assessments during the previous year.				X
9. Immunization-related information is forwarded to the BFHN and BCHAP staff working with family-serving programs and/or children in the community and to federally qualified health centers and program sites, including services for CSHCN.				X
10. Most CHCs have bilingual staff and all have access to interpreters as part of practicing cultural competence when providing outreach and health education. Immunization Vaccine Information Statements (VIS) are available in many different languages.		X		X

#### **b. Current Activities**

See Summary Sheet for NPM 7.

The MCH Immunization Specialist continues to include federally qualified health centers, home visiting programs and local community programs on her immunization information mailing list, targeting sites that have not met the threshold for immunization assessments.

All immunization-related information is forwarded to the Bureau program staff working with programs serving families and/or children in the community.

The Bureau collaborates closely the Bureau of Family Health and Nutrition's Family Home Visiting (FHV) programs that provide intensive home visiting services to high-risk families and young parents. Coordination between the Bureau and these programs is important and facilitates immunization knowledge and tracking.

Multiple BFHN and BCHAP programs address immunization issues. MCH IP regularly sends information to the program directors and staff at the service delivery sites. Programs include community health centers, WIC, EI, EIPP, FOR Families, School-Based Health Centers, Essential School Health Services, Children with Special Health Care Needs and health education programs.

2100 school nurses received ongoing updated information on the epidemiology of the H1N1 influenza pandemic with associated materials for parents and guidelines for schools; this information was shared on an almost daily basis as it was updated.

MIP has resumed work on the state registry with plans to conduct pilot testing of the system late FY10 or early FY11.

#### **c. Plan for the Coming Year**

Continue ongoing and current activities including:

- Improve Massachusetts's immunization rates to a level greater than 83.9% for the 4:3:1:3:3 series by continuing annual in-services and material distribution to community partners.

- Offer technical assistance to sites that fail assessment with training on how to improve immunization rates.
- Participation in a state immunization registry when implemented
- Continue with four regional in-services for the Bureau programs and local community based organizations to facilitate immunization education at the community level.
- The new WIC computer system is near completion. Immunizations will be processed through collaboration with the EHS Virtual Gateway and their forecast module. It will interface with the state's "Immunization Wizard" to provide immunization recommendations as part of WIC immunization assessments. WIC plans on rolling out in late May 2010.
- Develop plan to monitor possible changes in immunization rates based on parental refusal.
- To bring Massachusetts' school immunization requirements up to date with recent recommendations by the CDC Advisory Committee on immunization Practiced (ACIP), the MDPH has made changes to the school immunization requirements effective in the fall of 2011. These changes include 2 doses of MMR, 2 doses of Varicella (both required for kindergarten, 7th grade, fulltime college freshmen and health science students) and 1 dose of Tdap for entry into 7th grade, fulltime college freshmen and health science students.

One goal for the future will be to ensure that all federally qualified health center sites have an immunization tracking system that has the capacity to identify those clients who are overdue for immunizations. The future implementation of the Massachusetts Immunization registry will make the process of tracking immunizations easier and more cost effective for the sites. Pediatric practitioners at community health centers must also implement quality improvement recommendations from MIP, collaborate with the local WIC program in planning mechanisms for same day immunizations, and implement the most up-to-date "Recommended Childhood Immunization Schedule."

**Performance Measure 08:** *The rate of birth (per 1,000) for teenagers aged 15 through 17 years.*

Tracking Performance Measures

[Secs 485 (2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective	12	11.5	11	10.5	11
Annual Indicator	11.5	10.4	11.5	9.9	9.9
Numerator	1440	1379	1543	1361	
Denominator	125294	132803	134644	136965	
Data Source				Mass. Vital Records	Mass. Vital Records
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	10	10	10	10	10

**Notes - 2009**

2009 birth data are not available. We have estimated the same rate to that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

Outyear Performance Objectives have been adjusted to reflect a leveling off of the rate, particularly in light of the effect of continued budget cuts to teen pregnancy prevention and family planning services.

**Notes - 2008**

Birth data are from MDPH, Vital Records for calendar year 2008. This is the most recent year of data available.

The 2008 denominator is from the most recent population estimates for Massachusetts, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The number of female teens ages 15-17 is roughly estimated at 60% of the standard 5-year age group 15-19. Because the denominator is an estimate from an estimate, we consider the rate to still be "provisional."

Outyear Performance Objectives have been adjusted to reflect a leveling off of the rate, particularly in light of the effect of state FY09 budget cuts to teen pregnancy prevention and family planning services that are not expected to rebound quickly.

**Notes - 2007**

Birth data are from MDPH, Vital Records for calendar year 2007.

The 2007 denominator is from population estimates for Massachusetts, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The number of female teens ages 15-17 is roughly estimated at 60% of the standard 5-year age group 15-19.

**a. Last Year's Accomplishments**

18 evidence-based teen pregnancy prevention programs continued to be funded in high teen birth rate communities. All programs are implementing curricula and providing referrals and additional services to youth, their families and their communities. Services continue to be evaluated through the cross-site evaluation managed by John Snow Inc.

In FY08 state legislation mandated that teen pregnancy prevention services be provided to youth in foster and out-of-home care. All 18 evidence-based funded programs received an increase in funding to provide services to this population. In FY09, 1,783 youth in foster care and/or involved with the Department of Children and Families were served by a teen pregnancy prevention program. Teen pregnancy prevention providers also served 291 foster parents and/or DCF program staff.

Two rural community coalitions were funded to provide teen pregnancy prevention services and bring community awareness to the issue of teen pregnancy. Funding to these communities was reduced by 50% in FY09 due to state budget cuts, resulting in the loss of services to 1,054 youth and families.

Family Planning (FP) funding decreased significantly in FY09, from \$5.5 million to \$4.9 million.

To increase accessibility, one page downloadable "Choosing a Birth Control Method" fact sheets were developed in English and translated into Chinese, Haitian Creole, Khmer, Portuguese, Spanish and Vietnamese, with new content on additional FP methods (e.g., Implanon and Cycle beads). The fact sheets were reviewed by family planning providers and focus grouped by women in the target audience to ensure cultural competency and accuracy of translation. The "Choosing a Birth Control Method" brochure continues to be available in English, Spanish and Portuguese. Over 20,000 brochures were distributed in FY09. The brochures and fact sheets

were are available online at [www.maclearringhouse.com](http://www.maclearringhouse.com).

A "Where can I get Plan B?" flow chart was developed and updated with new FDA age guidelines and is downloadable on the Clearinghouse website. This flowchart provides information about what to do if one has had unprotected sex in the last five days. Action steps are described and Massachusetts resources are provided about how to obtain emergency contraception.

Maria Talks <http://www.mariatalks.com/> launched in January 2009 hosted by AIDS Action Committee (AAC) and developed with the DPH Family Planning Program, OAYD, STD Bureau, DVIP and other related MDPH programs. It offers comprehensive, medically accurate information on 'sex, birth control and things that matter,' STI and STD, sexual violence, substance use, and GLBTQ information and programs. The target population will be adolescents with the goal of providing accurate health information and referrals to family planning and related services. The website is linked to social networking sites such as MySpace and a Statewide Sexual Health Hotline (877) MA-SEX-ED or (877) 627-3933 which uses a multi-language service line to meet the needs of callers. In the first 6 months of operation, there were over 4,300 visits to the website.

In FY09, 41.69% of female clients aged 15 through 17 years who had at least one visit to the SBHC were identified to be at risk for STD/pregnancy. Of those clients, 99.88% had a follow up plan (i.e., received risk reduction counseling), as appropriate.

Of clients aged 15-17 years who had at least one visit to the SBHC, 13.82% had a pregnancy test at least once during FY09.

SBHCs in high schools provided extensive health education on topics including contraception, STIs, healthy sexual relationships, & reality-based implications of teen parenting. In 2 communities, a teen pregnancy task force was developed to address the issue of increasing rates of teen pregnancy. In several SBHCs where reproductive health service provision is restricted by the school, students received counseling and obtained referrals to see the SBHC nurse practitioner offsite (at sponsoring agency clinics) for contraceptive services. CQI activities demonstrate that students keep their 'follow-up' appointments at a rate of 90%.

In conjunction with the annual release of Massachusetts birth data, fact sheets are distributed about teen pregnancy in the communities with the highest teen pregnancy rates and in communities with science-based programs. Communities use the fact sheets to generate media attention and inform local response.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Evidence-based teen pregnancy programs are funded in 15 communities with high teen birth rates (components include individualized case management, sex education, HIV/AIDS prevention, and service learning). Independent evaluation and TA are funded.		X		X
2. Teen Pregnancy Prevention coalitions were defunded in FY10 and no longer continue delivering evidence-based curricula.		X		
3. Family Planning (FP) agencies provide clinical and other services to adolescents statewide. An access coordinator and semi-annual statewide Abortion Advisory Committee meetings ensure all teens have access to services.	X			X
4. The FP program works with Keep Teens Healthy, a Medicaid program providing family planning outreach to high-risk teens, and with the HIV/AIDS Bureau on integration of HIV Counseling	X	X		X

and Testing into family planning clinics.				
5. FP collaborates with the EC Network to implement EC legislation, provide resources to adolescents, and educate adolescent service providers; and with DVIP, BHCQ, and the pharmacy access program to monitor hospital compliance.				X
6. Implementation of and dissemination of knowledge about Emergency Contraception (EC) legislation and FDA ruling on over-the-counter status of Plan B continue including development of a statewide Sexual Health hotline and website.				X
7. Youth Risk Behavior Survey (YRBS) and Massachusetts Youth Health Survey (YHS) surveillance data help monitor pregnancy risk behaviors and inform work of the Adolescent Health Council (AHC) and Youth and Young Adult Working Group (YYAWG).				X
8. The Office of Adolescent Health and Youth Development (OAHYD) provides leadership for youth development within DPH and coordination for the Governor's Council on Adolescent Health.			X	X
9. SBHCs provide comprehensive primary care including reproductive health care.	X			
10. Most ESHS health education programs include reproductive health and the School Health Manual has a chapter on reproductive health.			X	X

#### **b. Current Activities**

See also SPM 1.

OAHYD trained the 18 evidence-based programs in the ¡Cuídité! curriculum, the only evidence-based curriculum proven to prevent teen pregnancy among Latino youth.

Three science-based teen pregnancy prevention programs and both rural community coalitions were eliminated in FY10 due to budget cuts.

Family planning services funding was decreased by 10% in FY10 due to budget reductions. This is a total funding reduction of 20% since FY08.

Maria Talks is being transitioned to a content management system in FY10, with the addition of HIV content and planned expanded marketing to communities with high Latino teen birth rates.

The Family Planning program will continue with implementation of EC legislation, including development of materials specific for consumers including adolescents, the monitoring of hospital compliance with services to sexual assault survivors and the pharmacy access program. Pharmacist and interns will continue to be on staff in FY10.

The SBHC Program, in collaboration with the Family Planning Program, hosted a reproductive health training for SBHC clinical providers. Topics included sexual history taking, dispensing contraceptives in the SBHC and new birth control methods.

The SBHC program collaborated with the Family Planning program to conduct a needs assessment in response to provider concerns regarding barriers to contraceptives in the school setting. A meeting was held for clinicians to address the findings of the assessment.

#### **c. Plan for the Coming Year**

See also SPM #1

The OAHYD will continue to work with the Department of Children and Families to offer statewide trainings to DCF staff to increase their capacity to have discussions with young people on healthy relationships and adolescent sexual health topics.

Continue provision of evidence-based teen pregnancy prevention programming and programs with youth in foster and out-of-home care in high teen birth rate communities; Continuation of technical assistance by OAHYD, and cross-site evaluation provided by John Snow Inc. of statewide programming.

Continue implementation of MariaTalks.com, the Statewide Sexual Health Hotline and Website. The site will increase access to information and referrals for EC, STD, family planning and related services. The substance abuse component of the site will be developed and added. Increased collaboration/links with other MDPH websites will occur and monitoring and evaluation of services will continue. Targeted marketing will occur to high Latino teen birth communities.

The Family Planning program will continue with implementation of EC legislation, including development of materials specific for consumers including adolescents, the monitoring of hospital compliance with services to sexual assault survivors and the pharmacy access program. EC educational materials and information will continue to be distributed to adolescent service providers.

The SBHC Program will continue to collaborate with the Family Planning Program to address barriers to providing contraceptives in the school setting and to meet the professional development needs of SBHC clinicians. Evaluation results from the FY10 Reproductive Health training will be assessed, and findings will be used to plan a clinical training in FY11 for SBHC providers.

**Performance Measure 09:** *Percent of third grade children who have received protective sealants on at least one permanent molar tooth.*

Tracking Performance Measures

[Secs 485 (2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	62.2	61	63	66.5	68
Annual Indicator	59.4	64.6	66.2	67.4	63
Numerator					
Denominator					
Data Source				Mass. BRFSS	Mass. BRFSS
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	65	66	67	69	70

**Notes - 2009**

The data for 2009 are taken from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). A children's dental health module, containing this and other questions, is carried out every year. The data are not specific for the narrow age range specified in the measure, but capture data for children ages 6 - 18. The estimated percentage fell in the 2009 survey, but the 95% Confidence Interval of 57.9% to 68.1% indicates that the rate remains not statistically different from the previous finding. However, projections through 2014 have been adjusted.

#### **Notes - 2008**

The data for 2008 are taken from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). A children's dental health module, containing this and other questions, is carried out every year. The data are not specific for the narrow age range specified in the measure, but capture data for children ages 6 - 18.

Outyear Performance Objectives have been raised slightly, to reflect continued improvement in these results.

#### **Notes - 2007**

The data for 2007 are taken from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). A children's dental health module, containing this and other questions, was introduced in the 2001 Survey and is now being carried out every year. The data are not specific for the narrow age range specified in the measure, but capture data for children ages 6 - 18. The survey rates within various socioeconomic categories (preliminary data) continue to show consistently higher rates of sealants as family income rises: 49.8 % (C.I. 36.2% – 63.3%) at under \$25,000 compared with 75.1 % (C.I. 69.0% – 81.2%) at over \$75,000).

#### **a. Last Year's Accomplishments**

See also SPM #4 and Priority Need #8.

For FY 2009, MassHealth (Medicaid) reported that just 32% of their members 6-9 years of age received a dental sealant; a slight decrease from the previous two fiscal years for this same age group.

The state also measures the number of 6-17 year olds with at least one dental sealant using the annual BRFSS. According to 2009 data, 63.0% of children reported on had at least one dental sealant (a rate that is not statistically different from the previous year). Note that this rate is not for the exact age group specified in the measure. Survey rates within various socioeconomic categories show consistently higher rates of sealants as parent education levels rise.

The data is limiting in that it does not single out 3rd graders (8-9 year old children) from other age groups. At this time, the Office of Oral Health (OOH) cannot track all 3rd grade students in the state, but has developed a monitoring form working with Essential School Health Services relying on the school nurses to report on the numbers of children served by the programs that enter their schools.

Due to fee increases in the MassHealth dental program, the latest in 2009, the reimbursement rate for dental sealants was increased and thus the number of programs providing this service in school-based and school-linked preventive dental programs has increased slightly.

Historically, school-based and school-linked dental programs have served children who would not otherwise receive these services in a private practice. Third grade children covered by MassHealth and CMSP, as well as others with no insurance are increasingly able to access preventive dental procedures such as sealants through these mobile and portable programs. The percentage of MassHealth eligible children receiving dental sealants in the two most age appropriate groups, 6-9 and 10-14, range from 32-36% with a slight decrease in the 10-14 year old group in FY09.



The OOH received a HRSA Workforce Grant in the fall of 2006 and a subsequent grant from HRSA via their MCH Bureau. These grants allowed the OOH to expand school-based sealant programs, targeting not only 2nd and 3rd graders, but 7th graders (HP 2010 21-8(b)). The OOH First collaborated with the Mount Wachusett Community College dental hygiene program and the Fitchburg Community Health Center (as the referral source for restorative needs) to implement an oral health prevention program (Fitchburg SEAL) beginning at one Fitchburg Middle School. In addition the OOH collaborates with the Chicopee Health Department and also provides sealants in 3 other high-need communities using dental hygienists employed by the OOH.

First conceived by the OOH, draft regulations were developed for mobile and portable oral health programs by the Board of Registration in Dentistry and will be in effect by the fall of 2010.

The ESHS data tracks the percentage and numbers of children provided oral health screenings, whether screenings were performed by nurses, dentists or hygienists, third grade screenings, dental sealants, fluoride rinses, referrals to the dental provider. School nurses provide about one-third of screenings in these districts.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. MassHealth, CMSP and most other 3rd party payor dental benefits include protective sealants for children.	X			
2. Outreach and improved reimbursement rates for the MassHealth/CMSP dental provider network using the state's Third Party Administrator, Doral Dental.				X
3. The Office of Oral Health (OOH) provides leadership to improve oral health status with a focus on children and preventive services.				X
4. OOH conducts surveillance of 3rd grade children's oral health status, including sealants and provides technical assistance to schools, community programs and community health centers interested in developing sealant programs.			X	X
5. School-based preventive (sealant) programs are statewide, including all public elementary schools in Boston. OOH also provides direct service delivery of dental sealants in state-funded SBHCs.	X			X
6. The OOH collaborates with ESHS and school nurses re programs and services and provides oral health training to school nurses in ESHS-funded districts; the revised school health manual includes an oral health chapter.				X
7. Dental services provided in community health centers and other contracted primary care sites. The OOH collaborates with many CHC dental programs to develop sustainability within programs and access to restorative treatment.	X			
8. Specialist oral health consultant promotes preventive dentistry services for CSHCN.	X		X	X
9. Expansion of school-based programs to 7th graders to measure against Healthy People 2010 Objective 21-8(b).	X			
10. Weekly school fluoride mouthrinse program serves approximately 50,000 children annually.	X			

**b. Current Activities**

See also ongoing activities Summary Sheet above and SPM #4 and Priority Need #8.

Fitchburg SEAL continued in school year 2009-2010 with a slight increase in participation among the students. The Program was funded through sustained funding from Year 2. The OOH implemented the CDC's SEAL data collection tool and determines the effectiveness of the Fitchburg SEAL program, as well as retention rates of sealants. Since its inception the program has placed about 1,000 sealants.

OOH continued collaboration with the Chicopee Board of Health and Caring Health Center to implement a preventive (sealant) program in Chicopee for 7th graders. The program expanded to 2 middle schools and 2 elementary schools. The CHC is providing the follow-up/restorative care and serving as the program's fiscal agent for sustainability. In fall 2009, the program placed more than 300 dental sealants.

In school year 09-10, the OOH expanded its school-based prevention program to 3 high-need communities, serving grades K-12 in 52 schools. Over 75% of the children with consent are MassHealth eligible. A 4-year MCHB grant supports the program; plans are to expand to additional schools these communities and expand to two other high-need communities in the Boston area. Data from the program is managed and analyzed using the CDC's SEALs program.

### c. Plan for the Coming Year

See also SPM #4 and Priority Need #8. Current activities continue.

In FY 2011 (September 2010) the OOH will be expanding its school-based sealant programs serving elementary, middle school and high school students. In the fall of 2007, the OOH received an MCHB grant to implement programs in the 47 state-funded school-based health center schools and has expanded its service to include other high-need schools. In the fall of 2009, the OOH received HRSA BHP funding to develop a statewide plan for expanding school sealant program. This plan was implemented in school year 2009-2010 in schools with high-need and funds the hiring of two dental hygienists who will serve high-need communities north and south of Boston.

Expansion of the Chicopee program will increase to 2 middle schools, 4 elementary schools and one alternative school in the fall 2010.

**Performance Measure 10:** *The rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per 100,000 children.*

### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective	1.2	1.2	1.2	1.2	1.2
Annual Indicator	1.3	1.2	0.8	0.7	0.7
Numerator	16	14	9	8	
Denominator	1214584	1202482	1188128	1148340	
Data Source				Mass. Vital Records	Mass. Vital Records
Check this box if you cannot report the numerator because					

1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	0.7	0.7	0.7	0.7	0.7

#### Notes - 2009

2009 death data are not available. We have estimated a rate in line with historical trend data, accounting for the possibility that the 2008 3-year average may be overly affected by two years' unusually low numerators. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

#### Notes - 2008

Data on deaths are taken from MDPH Vital Records for calendar years 2006 - 2008. This includes the most recent year of data available. Rates are calculated as rolling 3-year averages. (I.e. the 2008 numerator is the sum of the 2006, 2007 and 2008 numbers of deaths (12, 5, and 6) respectively and the denominator is the sum of the most recent Massachusetts population estimates for the age group for the same years. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

The denominator is from the most recent population estimates for Massachusetts, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation.

#### Notes - 2007

Data on deaths are taken from MDPH Vital Records for calendar years 2005 - 2007. Rates are calculated as rolling 3-year averages. (I.e. the 2007 numerator is the sum of the 2005, 2006 and 2007 numbers of deaths (10, 12, and 5) respectively and the denominator is the sum of the Massachusetts population estimates for the age group for the same years. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

#### a. Last Year's Accomplishments

Staff of the Injury Prevention and Control Program continued to focus on Child Passenger Safety issues. Activities included:

- Coordination with MassPINN (Prevent Injuries Now Network) and the Partnership for Passenger Safety on proposed policy issues such as a ban on texting while driving and passage of a primary seat belt law.
- Technical support, referrals and education materials to the public via the Car-Safe Phone Line, a statewide 800# phone line. The line receives 25 calls per month from consumers looking for information on passenger safety.
- Facilitation of quarterly meetings of the Partnership for Passenger Safety (PPS). PPS includes three working groups: Child Passenger Safety, Teen Driver Safety and Older Adult Driver Safety.
- Attendance at meetings and technical support to coalitions and partners such as Greater Boston Safe Kids Coalition, Western MA Safe Kids Coalition, Injury Free Coalition for Kids of Boston, Injury Free Coalition for Kids of Worcester and MassPINN.
- Planning of a workshop for the Annual Moving Together Conference, the statewide bike/pedestrian conference.

- Participation in the development of Executive Office of Transportation's Massachusetts Strategic Highway Safety Plan. This work is ongoing.

EIPP and other Home Visitors provided information to parents on infant passenger safety and resources to obtain child safety seats with instructions for their proper use.

SBHC standards recommend that all SBHC-enrolled students receive an annual risk and resiliency assessment that includes screening for seatbelt use. In FY09, SBHC clinicians screened students, including those 14 years and younger, who had at least one visit to the SBHC for "seatbelt non-use". Those students identified as "at-risk" were required to have a follow up plan that included risk reduction counseling and/or anticipatory guidance.

SBHC clinicians are also using the CRAFFT tool for substance use assessment; the first item on the screening tool asks "Have you ever ridden in a CAR driven by someone including yourself who was "high" or had been using alcohol or drugs?" This is a validated question intended to assess for risk of vehicular homicide. SBHC clinicians attended a CRAFFT skill-building workshop that was sponsored by MDPH and presented by the Director of Research Operations for the Center for Adolescent Substance Abuse Research (CeASAR), Children's Hospital Boston.

During the school year 2008-09, school nurses were able to assess and/or treat 91.5% of the on-campus injuries and illnesses brought to their attention and return students to class. Of students who had to be dismissed, 91% were due to illness and only 9% to injuries. For more serious injuries nurses filed injury state and local reports, including reports of 17,730 unintentional injuries, 2,468 intentional injuries and 3,193 injuries of unknown intent. Referrals to urgent health care services were made in 10,184 cases. In 1,926 of these events, 911 or ambulance services were called and in 8,258 parents or others were called to transport the student to health services.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Child Fatality Review Teams operate in every county; MDPH participates and IPCP responds to Child Fatality Review Annual Report recommendations re issues of child passenger safety and bike/pedestrian safety.				X
2. IPCP provides technical assistance to child safety seat checkpoints statewide.		X		
3. IPCP hosts the Car-Safe Line and distributes passenger safety information to Massachusetts residents. Disseminates educational materials on child passenger safety (CPS) to relevant MDPH programs, consumers, and providers.			X	X
4. IPCP coordinates with coalitions, such as the Greater Boston Safe Kids Coalition, Western Mass. Safe Kids Coalition, Injury Free Coalition for Kids of Boston, and Injury Free Coalition for Kids of Worcester, and work/advisory groups.				X
5. IPCP implements traffic safety objectives included in the 5-year injury prevention strategic plan and statewide highway safety plan.				X
6. IPCP continues to update and develop new passenger safety related materials and improve collaboration/integration of CPS information and materials with state and other agencies serving children.				X
7. EI, EIPP, AHH, FRESH Start, FOR Families, ESHS, WIC, and		X		X

SBHCs provide education to clients on passenger/ motor safety and on resources for obtaining child safety seats.				
8. IPCP facilitates Partnership for Passenger Safety meetings and provides technical support to the MA Safe Routes to School Program.				X
9. IPCP works with Executive Office of Public Safety (EOPSS) to develop joint strategies and initiatives such as the Teen Driver Safety Program.			X	X
10.				

#### **b. Current Activities**

IPCP conducts or participates in many targeted activities related to motor vehicle safety, including those listed in Summary Sheet and ongoing work with the Partnership for Passenger Safety Teen Driving Working Group including a strong focus on supporting the proposed texting ban legislation. IPCP has been collaborating with EOPSS Highway Safety Division to coordinate data, passenger safety help lines, and passenger safety technician activities. For a variety of reasons, IPCP has determined that while it is important to have knowledgeable staff in terms of passenger safety, it is not necessary to assure a certified technician as other agencies (local and state) can meet that need. We are working to refine our role as providing coordination and technical assistance.

The SBHC Program is collaborating with the Institute for Health and Recovery to provide CRAFFT and SBIRT (screening, brief intervention, referral and treatment) training to SBHC providers. The Director of the Screening and Early Identification Programs will provide on-site training, prioritizing SBHC's that have identified substance use as a priority issue for the school and community. Direct linkages will be made with local substance abuse service providers in the SBHC communities.

#### **c. Plan for the Coming Year**

Continue ongoing activities.

The IPCP plans a number of targeted activities:

- Continue to coordinate with MassPINN (Prevent Injuries Now Network) and the Partnership for Passenger Safety on passage of bills related to a ban on texting while driving and passage of a primary seat belt law.
- Develop a traffic safety component to respond to the ASTHO Presidential Challenge on injury prevention including the exploration of a cell phone ban or hands free requirement for all EOHHS employees on state time.
- Provide technical support, referrals and education materials to the public via the Car-Safe Phone Line, a state wide 800# phone line.
- Facilitate quarterly meetings of the Partnership for Passenger Safety (PPS) with a focus on two of three working groups: Child Passenger Safety and Teen Driver Safety.
- Attend meetings and provide technical support to coalitions, such as Greater Boston Safe Kids Coalition, Western MA Safe Kids Coalition, Injury Free Coalition for Kids of Boston, Injury Free Coalition for Kids of Worcester and MassPINN.
- Plan a workshop for the Annual Moving Together Conference, the statewide bike/pedestrian conference that focuses on 10-14 year olds.
- Participate in meetings of the Executive Office of Transportation's Massachusetts Strategic Highway Safety Plan and participate in the development of action plans for appropriate recommendations.
- In keeping with new State Performance #8 (Reduce MV deaths for ages 15-24), work closely with our partners to provide evidence based programming to teen drivers across the state.

SBHCs will continue to promote the consistent use of CRAFFT screening across all SBHCs. The SBHC program will continue to analyze aggregate data to determine the prevalence of risk assessment in this category.

**Performance Measure 11:** *The percent of mothers who breastfeed their infants at 6 months of age.*

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective		40	45	42	45
Annual Indicator	38.8	42.7	47	44.2	50.1
Numerator					
Denominator					
Data Source		CDC's 2006 National Immunization Survey		CDC, NIS	CDC, NIS
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	50.2	50.5	51	51.5	52

**Notes - 2009**

Data Source: CDC National Immunization 2009 Survey Provisional data (for the 2007 birth cohort). ([www.cdc.gov/breastfeeding/data/NIS\\_data/index.htm](http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm)).

Because they are survey data, there are no numerator or denominator values. These data report breastfeeding rates for children born in 2007 (Hence the date on the reference source). They are provisional data, as CDC will continue to interview this cohort through November, 2010; final estimates for 2007 births will be available in August of 2011.

The data indicate a rate of breastfeeding at 6 months of 50.1% (plus or minus 7.6%) and a rate of ever breastfeeding of 77.6% (plus or minus 7.3%). These compare favorably with provisional national average rates of 43.0% and 75.0%, although they remain well below HP 2010 targets. The state rates for exclusive breastfeeding at 3 months and 6 months were 37.9% (+ or – 7.3) and 20.5% (+ or – 6.1 and up from 13.8% in 2006) respectively; the comparable provisional national rates are 33.0% and 13.3%. This pattern indicates no statistically significant changes in Massachusetts from the 2006 birth cohort data (see 2008 Note). Differences between any of the Massachusetts rates and the national ones remain statistically insignificant, with overlapping confidence intervals, although exclusive breastfeeding at 6 months is approaching a significant difference.

Massachusetts 2008 birth certificate data on breastfeeding (or intent to breastfeed) at hospital discharge indicated a rate of 80.8%, up slightly from 2007.

2009 Massachusetts PedNSS data about breastfeeding among WIC participants are also now

available. The breastfeeding rate at 6 months was 28.3% in 2009, up slightly from 27.3% in 2008.

#### **Notes - 2008**

Data Source: CDC National Immunization 2008 Survey Provisional data (for the 2006 birth cohort). ([www.cdc.gov/breastfeeding/data/NIS\\_data/index.htm](http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm)).

Because they are survey data, there are no numerator or denominator values. These data report breastfeeding rates for children born in 2006 (Hence the date on the reference source). They are now final estimates.

The data indicate a rate of breastfeeding at 6 months of 44.2% (plus or minus 6.2%) and a rate of ever breastfeeding of 77.5% (plus or minus 5.9%). These compare with final national average rates of 43.5% and 74.0%. The final state rates for exclusive breastfeeding at 3 months and 6 months were 37.6% (+ or – 6.0) and 13.8% (+ or – 4.3) respectively; the comparable provisional national rates were 33.6% and 14.1%. This pattern indicates no statistically significant changes in Massachusetts from the 2005 birth cohort data (see 2007 Note). Differences between any of the Massachusetts rates and the national ones remain statistically insignificant, with overlapping confidence intervals.

The NIS survey data for initiating breastfeeding compare closely with data from our 2006 birth certificate data on breastfeeding (or intent to breastfeed) at hospital discharge of 79.9%.

2008 Massachusetts PedNSS data about breastfeeding among WIC participants are now available. The breastfeeding rate at 6 months was 27.3% in 2008, up from 26.2% in 2006.

#### **Notes - 2007**

Data Source: CDC National Immunization 2007 Survey data (for the 2005 birth cohort).

Because they are survey data, there are no numerator or denominator values. These data report breastfeeding rates for children born in 2005 (Hence the date on the reference source). They are final data.

The data indicate a rate of breastfeeding at 6 months of 47.0% (plus or minus 6.7%) and a rate of ever breastfeeding of 78.9% (plus or minus 5.8%). These compare with national average rates of 42.9% and 74.1%. The state rates for exclusive breastfeeding at 3 months and 6 months were 37.6% (+ or – 6.5) and 14.0% (+ or – 4.8) respectively; the comparable national rates were 32.1% and 12.3%. This pattern indicates improvements from the previous survey in Massachusetts for ever breastfeeding, breastfeeding at 6 months, and exclusive breastfeeding at both 3 and 6 mos., and with all those rates slightly higher than national trends. However, differences between any of the Massachusetts rates and the national ones remain statistically insignificant, with overlapping confidence intervals.

The NIS survey data for initiating breastfeeding compare closely with data from our 2005 birth certificate data on breastfeeding (or intent to breastfeed) at hospital discharge of 79.3%.

The newly initiated Massachusetts PRAMS survey finalized data for 2007 indicate that 81.5% of women initiated breastfeeding, and 62.4% were still breastfeeding at 8 weeks.

#### **a. Last Year's Accomplishments**

According to the 2009 CDC PedNSS Report, 74% of WIC infants were breastfed in 2009, up slightly from 2008 and compared to 62% nationally in the previous year (2008). The breastfeeding rate at 6 months was 28.3% in 2009, up from 27.3% in 2008, and 25.8% in 2007. Massachusetts was above the national average in 2008 of 26.9%. PedNSS data largely consists of data from WIC participants.

Data released in 2009 from the 2006 CDC National Immunization Survey birth cohort, which includes participants from a more diverse socioeconomic background, shows an increased percentage of infants breastfeeding at 6 months in Massachusetts (44.7%) and nationally (43.6%) than in the previous year.

34 WIC Programs with more than 100 peer counselors (many having multiple years of service) were funded for the 'Mother to Mother' Breastfeeding Peer Counselor Program, including the addition of two new programs. The peer counseling program continued to be significantly strengthened and enhanced with the addition of federal "Loving Support" funds.

WIC offered "Breastfeeding Basics" training and advanced breastfeeding in-services to WIC nutrition staff and other interested staff of related programs.

The Nutrition Division, in partnership with perinatal programs within the Bureau, continued to support the Guidelines for Breastfeeding Initiation and Support with birth hospitals in Massachusetts. DPH Breastfeeding Achievement Awards were given to hospitals that are taking steps to improve their environments and policies related to breastfeeding care.

The Nutrition Division continued to distribute the breastfeeding brochure "You've Got What It Takes...Give Your Baby the Best" in multiple languages to birth hospitals.

DPH was an active member of the Massachusetts Breastfeeding Coalition (MBC). In collaboration with MBC, DPH revised and distributed the Massachusetts Breastfeeding Resource Guide to more than 1,000 health professionals statewide.

In April 2009, legislation was passed that enabled breastfeeding in public, functionally repealing a law against breastfeeding in public from the Massachusetts General Laws: "Section 221. (a) A mother may breastfeed her child in any public place or establishment or place which is open to and accepts or solicits the patronage of the general public and where the mother and her child may otherwise lawfully be present."

In FY09, 70.60% of all EIPP Participants were breastfeeding at birth and 57.02% were still breastfeeding at 2 weeks post partum. Only 19.60% continued to breastfeed at six months post partum. Barriers for mothers continuing to breastfeed include domestic violence, depression, easy access to infant formula, lack of support at place of employment or school, mothers being prescribed psychotropic medications, and breast-related problems.

Since revised perinatal regulations were promulgated in 2006, the BFHN and the Bureau for Health Care Safety and Quality (BHCSQ) have been collaborating on a system of reviewing services in each birth hospital to determine an appropriate level designation. To date, 35 of the 49 active Massachusetts Birth Hospitals have been surveyed and re-designated. As part of the survey process, MDPH staff review compliance with regulations that support initiating breast feeding; provide the updated Massachusetts Breastfeeding Resource Guide; and offer information about training hospital staff on how to best support breastfeeding mothers.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. The Breastfeeding Coordinator provides active leadership to promote breastfeeding statewide, and multifaceted approaches reach health care professionals, parents/extended family, and general public.				X
2. The Nutrition Division produces and disseminates educational materials and provides basic and advanced training to professional and paraprofessional staff in WIC and other DPH programs to promote breastfeeding.				X
3. Guidelines for Promoting and Supporting Breastfeeding are				X



updated and promoted through all hospital maternity units; BFHN and HCQ joint hospital perinatal licensure visits review hospitals' compliance with breastfeeding regulations.				
4. Local WIC programs encourage and counsel all women on breastfeeding benefits, provide manual pumps, refer, offer classes and support groups in multiple languages, and establish goals re breastfeeding initiation rates for women enrolled prenatally.		X		
5. Virtually all local WIC programs provide breastfeeding peer counseling services, and local offices offer community-wide celebrations of World Breastfeeding Week to increase awareness and support.		X		X
6. WIC and community health center nutritionists actively cross-refer, including health centers referring to peer counselors, based standing agreements between local organizations required of all local WIC offices.		X		X
7. The Nutrition Division is active in the Massachusetts Breastfeeding Coalition and annually distributes the MA Breastfeeding Resource Guide and other educational materials to birth hospitals, physicians and other health professionals.				X
8. EIPP provides intensive breastfeeding support and coordinates with WIC to improve initiation and duration rates through its services and referrals to advanced lactation support, and EIPP collects and manages related data to inform program development		X		X
9. Annually, the Partners in Perinatal Health Conference updates MA perinatal providers about breastfeeding topics.				X
10. Through PNSS, PedNSS, other WIC resources, PRAMS, and EIPP, Massachusetts collects, evaluates and disseminates data related to breastfeeding initiation, duration and exclusivity.				X

#### **b. Current Activities**

See Table 4A above.

DPH recognized hospitals that have applied for Certificates of Intent with the Baby Friendly Hospital Initiative.

The Nutrition Division and WIC continue to distribute materials in multiple languages to birth hospitals and OB/GYN community providers to improve early breastfeeding success and enhance hospital collaboration with community-based programs such as WIC's Peer Counselor Program. Local WIC programs are increasing face-to-face contact with health professionals.

The new WIC food package was launched, improving incentives for breastfeeding women and infants and creating strong support for exclusive breastfeeding.

WIC added 1 peer counseling program in January 2010; now all 35 MA WIC programs have these services. WIC continues to implement a statewide Breastfeeding Performance Improvement Project to improve breastfeeding initiation and duration rates as well as to improve the efficacy of the peer counselor program.

WIC has launched a Breastfeeding Social Marketing project to improve breastfeeding promotion partnerships with the health care provider community.

Breastfeeding education and resources are being added to the state's Mass In Motion initiative.

MDPH nutrition program staff continue to sponsor professional development trainings on the benefits of breastfeeding to promote healthy weight for nursing students and Family Practice Residents.

### c. Plan for the Coming Year

Continue ongoing activities.

Massachusetts WIC will implement social marketing tools and media pieces developed through the Breastfeeding Social Marketing Project. WIC will provide competency-based breastfeeding training for all WIC staff based on a national curriculum.

The Nutrition Division, in partnership with perinatal programs within the Bureau, will continue to support the Guidelines for Breastfeeding Initiation and Support with birth hospitals in Massachusetts. The Guidelines provide hospital staff with rationale and implementation guidance for the breastfeeding components of the perinatal licensure regulations, as well as outline best practices for breastfeeding support that further enhance the required policies and procedures. DPH Breastfeeding Achievement Awards will be given to hospitals that are taking steps to improve their environments and policies related to breastfeeding care.

MDPH will continue to survey hospitals. In addition to reviewing protocols and offering training for breastfeeding, MDPH will encourage active participation in the CDC mPINC survey (maternity Practices in Infant Nutrition and Care). The mPINC is a biannual national census of facilities that is designed to allow data to be used for advocacy and policy development to influence practice at facility and state levels.

BFHN staff will continue to collaborate with Vital Statistics to propose adding a question on exclusive breastfeeding at discharge to the electronic birth certificate. This would provide the capacity to infer the degree to which women who indicate their intent to breastfeed on the birth certificate will be successful.

### **Performance Measure 12:** *Percentage of newborns who have been screened for hearing before hospital discharge.*

#### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	99.9	99	99.8	98.8	98.8
Annual Indicator	98.9	98.9	98.8	99.1	98.9
Numerator	76991	77656	77762	76817	74986
Denominator	77841	78511	78724	77546	75850
Data Source				Vital Records & Child Hearing Data System	Vital Records & Child Hearing Data System
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than					

5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	99	99.2	99.4	99.6	99.6

#### **Notes - 2009**

Pre-discharge screening rates as tracked by the Childhood Hearing Data System (CHDS). Using birth data before their final de-duplication, cleaning and release ("closed" 2009 birth data will not be available until winter 2011) makes the reported data preliminary or provisional. The UNHSP preliminary numerator and estimated denominator are reported here and will be updated at a later date.

Screening rates are slightly less than 100% and will remain so due to a small number of parents who refuse the screening, infants who die prior to screening, and unknown/missed screens. See notes for 2008 for more details. Our goal – which is reflected in our performance objectives through 2014 -- is to continue to reduce the unknown/missed number to close to zero, leaving only refusals and deaths prior to screening as unscreened.

#### **Notes - 2008**

Pre-discharge screening rates as tracked by the Childhood Hearing Data System (CHDS). The 2008 data have been updated based on final, "clean" screening data and the closed 2008 birth file.

Screening rates are slightly less than 100% and will remain so due to a small number of parents who refuse the screening (22 in 2008), infants who died prior to screening (327 in 2008) and unknown/missed screens (380 in 2008).

The majority of those not screened are unknown or missed screens, including those missed due to transfers. Our goal – which is reflected in our performance objectives through 2013 -- is to reduce the unknown/missed number to close to zero, leaving only refusals and deaths prior to screening as unscreened. The number of unknown/missed screens was much lower in 2008 than in 2007.

#### **Notes - 2007**

Pre-discharge screening rates are reported initially by the Childhood Hearing Data System (CHDS). The 2007 data have been updated based on final, "clean" screening data and the closed 2007 birth file.

Screening rates are slightly less than 100% and will remain so due to a small number of parents who refuse the screening (30 in 2007), infants who died prior to screening (284 in 2007) and unknown/missed screens (648 in 2007).

#### **a. Last Year's Accomplishments**

The UNHSP provisional data for calendar year 2009 indicate that 74,986 (98.9%) of births were screened. Final data for calendar year 08 indicate that of the infants that did not pass the initial screening in one or both ears, 202 were diagnosed with hearing loss and 29 infants were diagnosed with later onset hearing loss. A new Parent Outreach Specialist was hired in a full-time state position. He is the parent of a young child with hearing loss identified by newborn hearing screening. He provided parents support and technical assistance soon after diagnosis. Outreach staff actively followed up approximately 1,400 families with phone calls (approx. 2,500) and letters (approx. 600). Families were followed until they entered EI. The Childhood Hearing Data System facilitated tracking, outreach, follow-up and documentation of the results.

Electronic Birth Certificate numerator data about screening were determined to be reliable and valid for updating this measure.

As result of work in NICHQ Learning Collaborative, from 2007 to 2008, there was a 41.4% decrease in the number of infants who missed a screen or had unknown results.

Provided the 50 MA birth facilities with data quality reports every two months.

Held bi-annual UNHSP Advisory Committee Meetings.

Provided 3 statewide trainings to 29 DPH Approved Audiological Centers (Usher's Syndrome, Interpretation of Multi-Disciplinary Test Results for Central Processing Disorders, Infant Brain Development, MA Commission for the Deaf and Hard of Hearing).

Used the Spanish translation of the Parent Information Kit and the Telephone Translation Language Line to enable outreach to families in numerous languages.

Took the lead on obtaining signatures for the regional newborn hearing screening interstate data sharing agreement with NE Health Departments.

Presented results of data and lessons learned during National Initiative for Children's Healthcare Quality (NICHQ) Learning Collaborative and the 2009 Early Hearing Detection and Intervention Conference and presented two posters focused on improving screening rates for home births and infants who are transferred from the hospital they are born in (including NICU infants).

Presented at a subcommittee meeting of the US Secretary of Health and Human Services Advisory Committee on Heritable Disorders in Newborn and Children on EHDI in MA and nationally.

Collaborated with the EI Office of Specialty Services to identify an "Early Intervention Hearing Loss Contact" at each of the 58 EI Centers in MA. Participated in two trainings, including providing the parent perspective to the new contacts.

Published an article in the March 09 ASHA Leader, "Developing a Strong Early Hearing Detection and Intervention Program" and collaborated with a parent to write the forward.

Actively participated in organizing a statewide training on vision and hearing screening for Head Start and presented on newborn hearing screening along with an audiologist that provided training on early childhood hearing screening.

Collaborated with Registry of Vital Records and Statistics to distribute materials on newborn hearing screening in every birth certificate packet that is used by midwives in MA.

Met with representatives of the Taiwanese government to discuss the feasibility of newborn hearing screening in that country.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. The Universal Newborn Hearing Screening Program (UNHSP) conducts activities related to HP 2010 Goal # 28-11: all newborns are screened by age 1 month, diagnosed by 3 months if they do not pass screening, and enrolled in EI by 6 months.			X	
2. The UNHSP reviews and approves all hospital newborn hearing screening protocols and disseminates new guidance, amended policies, and other information to birth facilities and diagnostic centers.				X
3. UNHSP staff conducts site visits to all hospitals, mails monthly data quality reports, and provides technical assistance as				X

needed.				
4. UNHSP maintains an Advisory Committee and, with members, updates guidelines and protocols as needed per Joint Committee on Infant Hearing (JCIH) and other expert input, and provides training to 29 approved audiological centers 3 times a year.				X
5. Outreach staff assures that all children receive appropriate follow-up diagnosis and care and refers infants diagnosed with hearing loss to EI, primary care, and CSHCN programs.		X		
6. UNHSP participates in local, regional and national workgroups and activities to develop information, resources and collaborations that continuously improve policies, services, and data.				X
7. UNHSP disseminates parent and provider information materials, including UNHSP brochures, parent information kits, provider information through the American Academy of Pediatricians Champion, meetings with graduate students, LEND Fellows and others.			X	X
8. UNHSP offers parent-to-parent support to all families of children identified with hearing loss.		X		
9. The UNHSP partners with the EI Partnering for the Success of Children with Hearing Loss initiative to ensure appropriate services are available for infants and young children with hearing loss.		X		
10. UNHSP evaluates its program, including surveying families and primary care providers, analyzing data re screening and loss to follow-up and publishing findings.				X

#### **b. Current Activities**

See also Summary Sheet and NPM #1, #2, and #3.

Massachusetts was recognized in the March CDC MMWR report for the lowest lost to follow-up rate in the nation.

Initiated electronic system to track diagnostic results and trained facilities. Established mechanism to collect informed consent from families with infants/children with hearing loss to ensure referral to the MA Commission for the Deaf and Hard of Hearing.

The widely distributed parent immunization record book now includes information on hearing screening results.

In collaboration with the state's Medicaid Program, developed and disseminated a statewide survey to better understand availability of appropriate hearing aid providers statewide (including information on acceptance of public and private insurance).

Developed a Family Support Plan through attendance at the National Investing in Family Support Conference. A contract with the Federation for Children with Special Needs now offers funds for flexible family support (e.g., parent stipends for attending meetings or conference registrations) for families with newly diagnosed children.

Participated in the Planning Committee of the Next Steps Conference sponsored by Children's Hospital Boston & Gallaudet University Regional Center; supported families and newly established EI Hearing Loss Contacts to attend it and the Decibels hearing loss conference.

Developed a friendly URL [www.mass.gov/dph/newbornhearingscreening](http://www.mass.gov/dph/newbornhearingscreening) and updated materials

on website.

**c. Plan for the Coming Year**

See also NPM #1, #2, and #3. Continue ongoing activities.

Oversee hearing screening for all infants born in MA annually and provide technical assistance/site visits and data reports to facilities.

Collect hearing screening results, medical and demographic information through the electronic birth certificate and contact by telephone and letters the approximately 1,400 families whose infants do not pass the screen to ensure they receive a diagnostic appointment.

Disseminate revised DPH Approved Audiological Center Guidelines to 29 centers, collect protocols for review and approval.

Revise Hospital Newborn Hearing Screening Guidelines in collaboration with the Advisory Committee and other stakeholders, disseminate to 50 birth facilities, and request revised protocol submission

Convene Universal Newborn Hearing Screening Program Advisory Committee and Audiological Diagnostic Center Meetings (including Cochlear Implant provider panel presentation) and provide presentations on emerging medical topics and program data to stakeholders.

Distribute hearing screening information in thirteen languages to the approximately 79,000 families with infants born in MA annually.

Provide parent-to-parent support at diagnosis of hearing loss, including a written Parent Information Kit available in English and Spanish

Carryout Family Support plan, including working with Family TIES to train parents to provide family-to-family support and reimburse parents/support activities through stipends.

Continue process begun in FY10 of integrating newborn hearing screening data with the Pregnancy to Early Life Longitudinal (PELL) database to better understand disparities in care and risk indicators for hearing loss. Continue on-going analysis of data to identify disparities in care and tailor outreach efforts accordingly. Develop research questions to use PELL data system to understand statewide usage of cochlear implants.

Continue to use the "small tests of change theory" learned through NICHQ Learning Collaborative to carryout QA/QI projects on projects. One such project is developing a birth facility "report card," which was tested in three facilities in FY10, in anticipation of statewide dissemination to 50 birth facilities.

Take the lead in developing and disseminating information packets similar to those provided by hospitals for the homebirth population in the state, including information on newborn hearing screening and prevention of CMV.

Submit abstracts and attend the national EHDI Conference sponsored by MCHB and CDC

Continue to educate providers, including medical homes and academic programs, and others about newborn hearing screening.

**Performance Measure 13:** *Percent of children without health insurance.*

## Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	3	2.5	2	2	1.2
Annual Indicator	3.2	2.5	2.3	1.2	1.9
Numerator					
Denominator					
Data Source				MA Div. of Hlth Care Finance & Policy survey	MA Div. of Hlth Care Finance & Policy survey
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	1.5	1.5	1.5	1.5	1.5

**Notes - 2009**

Data source: Massachusetts Division of Health Care Finance and Policy (HCFP). "Health Insurance Coverage in Massachusetts: Estimates from the 2009 Massachusetts Health Insurance Survey;" Powerpoint summary presentation, October 2009. ([www.mass.gov/dhcfp](http://www.mass.gov/dhcfp)) The 2009 estimated uninsured rate for children (under age 19) of 1.9% (95% CI plus or minus 1.2 percentage points) is not significantly different from the 2008 estimate of 1.2% (same CI).

The impact of the Massachusetts Health Care Reform Law is clearly demonstrated in the low % of uninsured children. Our out year Performance Objectives have been adjusted again accordingly.

**Notes - 2008**

Data source: Massachusetts Division of Health Care Finance and Policy (HCFP). "Health Insurance Coverage in Massachusetts: Estimates from the 2008 Massachusetts Health Insurance Survey;" Updated Powerpoint summary presentation, March 2009. ([www.mass.gov/dhcfp](http://www.mass.gov/dhcfp))

The impact of the Massachusetts Health Care Reform Law is clearly demonstrated in the continued reduction in the % of uninsured children. Our outyear Performance Objectives have been adjusted again accordingly.

**Notes - 2007**

Data source: 2007 household survey of Massachusetts residents conducted by the Massachusetts Division of Health Care Finance and Policy (HCFP). "Massachusetts Household Survey on Health Insurance Status, 2007;" Powerpoint summary presentation released, July, 2008. ([www.mass.gov/dhcfp](http://www.mass.gov/dhcfp))

Another comparative data source is the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), which includes questions on insurance coverage for household members under the age of 18. These questions are also asked every year. The 2007 BRFSS survey reported a rate of 1.1% (confidence interval of .4% - 1.9%), unchanged from the previous year. The BRFSS rates have historically been consistently lower than those found in the HCFP

surveys, but both surveys have demonstrated similar trends.

As a result of the major health care reform currently getting underway in the Commonwealth – which is designed to achieve universal health care coverage - we have set Performance Objectives reflecting a further drop in the rate, although with a higher residual uninsured percentage than previously projected. We will continue to monitor and adjust these projections as needed, as the economic downturn affects more families and federal decisions on Medicaid policy (e.g. the maximum FPL that can be covered) and the Massachusetts Medicaid waiver may affect the insurance situation for children.

#### **a. Last Year's Accomplishments**

Title V programs continued to monitor implementation and participate in activities to encourage full coverage under Massachusetts Health Care Reform legislation that has been in effect since the Spring of 2006. Since 2007, the coverage rate has remained at over 98%, including the expansion of Medicaid eligibility for children up to 300% of the FPL. Massachusetts has the best rate in the country. Public outreach and information continued to inform families both to the benefits they are now eligible for and to their responsibilities under the new law (e.g. purchasing insurance under various subsidies).

With the expansions in coverage, the majority of children in MassHealth (Medicaid) have moved from the PCC plan to a MCO plan. As the majority of pediatric providers are members of the 3 major MassHealth MCOs, there has been little if any disruption in care. CMSP (Children's Medical Security Plan) remains in place for children not eligible for MassHealth. Coverage has remained high.

Premium payments for children in the State Children's Health Insurance Program (SCHIP) are waived when they have parents with Commonwealth Care coverage who are paying individual premiums. This saves families with children receiving coverage through the MassHealth program monthly premiums of \$12-\$28 per child.

Of children in EI, 98.8% have private or public insurance. The remaining 1.2% receive state-funded EI services, and assistance is provided by EI staff to assess, as appropriate, public health insurance benefits. These percentages mirror statewide rates for children's health insurance coverage.

EIPP continues to foster strong relationships with two out of the four Massachusetts MassHealth Managed Care organizations (MCO) to provide reimbursement for home visits and groups, expanding insured benefits for EIPP Participants and thus stretching our program funds for uncovered services further. MCO's are utilizing identified CPT codes and reimbursement rates for home visiting services to improve the health and well-being of pregnant and post partum women and their infants. MDPH continues to cover the costs of providing services to families not on the two partner MCOs.

DPH Care Coordinators assisted 286 families through the Family Support Fund to reimburse costs of goods and services related to raising a child with special health care needs. These expenses tend not to be medical in nature and therefore not covered by health insurance.

The ESHS programs referred a total of 6,832 students for health insurance.

MassHealth continues to reimburse pediatric health providers to apply fluoride varnish during well-child visits. OOH has developed a tool kit and conducts trainings of medical providers, focusing on community health centers. Legislation has created a public health dental hygienist category to work without the supervision of a dentist. Dental hygienists can now bill MassHealth directly, increasing the number of low income children receiving sealants and fluoride.

MDPH SBHC Quality Standards require SBHCs to assist uninsured students in determining



eligibility for and enrollment into a state health insurance plan. Some electronically enroll students in MassHealth on-site using the Virtual Gateway at the SBHC (all are offered training) and others refer patients to another community location where they can be enrolled. SBHC's serve all children and youth regardless of their ability to pay and until their health insurance plans go into effect.

In collaboration with the University of Massachusetts Medical School, the Massachusetts Office of Medicaid is leading the Within Our Grasp: Achieving Full Insurance for Massachusetts Kids project as a grantee of the Maximizing Enrollment for Kids program funded by the Robert Johnson Foundation. Massachusetts is one of only eight states to receive these 4-year grants and was selected based on its proven success in and ongoing commitment to increasing children's health insurance enrollment, through such actions as increasing income eligibility and the use of a "family application" that allows everyone in a family to apply for public coverage using one form and the state administratively matches family members with the appropriate coverage. As a grantee, Massachusetts seeks to create an even more seamless and continuous enrollment and eligibility process to decrease the proportion of children who are MassHealth eligible but unenrolled.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. All BFHN and other DPH programs (e.g., ESHS, SBHCs) with direct family contact screen for health care access and insurance coverage, make referrals, and provide assistance to access coverage and care appropriate to the program and family.		X		
2. DPH works with Medicaid/SCHIP and the Health Connector on joint efforts to promote and sustain enrollment. DPH staff will continue to participate in EOHHS Health Reform development and implementation and monitor access for MCH populations.		X		X
3. DPH works with provider, professional, and community groups to maintain awareness of Health Care Reform and the multiple options and programs available, and to facilitate enrollment.				X
4. DPH works with community and advocacy groups to maintain awareness of programs and to facilitate enrollment.		X		X
5. Training and technical assistance is offered to providers and parents on SSI and public benefits that provide health insurance for CSHCN.		X		X
6. FOR Families, EIPP, and other home visitors provide information to families on public benefits and assist with enrollment in health insurance.		X		
7. The SHU updates information on insurance through its weekly email to school nurses and presents programs on the topic through the School Health Institute at Northeastern University.				X
8. See also activities for NPM #4, re adequate insurance for CSHCN.		X		X
9. BFHN and MDPH monitor developments under national health care reform (PPACA) and initiative planning, policy development, and applications for funding to maximize benefits for Mass. children, in collaboration with EOHHS and other partners.		X		X
10.				

**b. Current Activities**

See also Summary Chart and NPMs #2 and 4.

DPH assures that all existing and new programs continue to focus on enrolling all uninsured children and families in appropriate insurance plans and address incremental changes and developments as the plan continues to be implemented.

BFHN continues to work with MassHealth and the Health Connector to assure children and families are enrolled in appropriate health coverage plans, to monitor effects of recertification and possible disenrollment due to premium nonpayment. DPH participates in quality and cost control council and activities.

Early Intervention benefits under Medicaid expanded effective July 1, 2009 with the addition of Medicaid coverage for developmental specialists. All professional disciplines are now covered by MassHealth. This helps assure equitable EI services for all participants.

BFHN and the Department continue to monitoring any changes or new trends in insurance status for children under Massachusetts health care reform. In addition, we have begun analyzing the short- and long-term potential impacts of national health care reform and the Patient Protection and Affordable Care Act on children and their families in terms of both insurance coverage and costs.

### **c. Plan for the Coming Year**

See also NPM #4. Continue ongoing activities.

BFHN will continue to work with MassHealth, the Health Connector, and others to assure children and families are enrolled in appropriate health coverage plans and to monitor effects of any changes in health care reform policies, procedures, or options under the current severe budgetary strains and various proposals to control costs. Effects on the current programs, such as EI and EIPP will continue to be reviewed and programs modified as indicated.

Through the Within Our Grasp: Achieving Full Insurance for Massachusetts Kids project as a grantee of the Maximizing Enrollment for Kids program funded by the Robert Johnson Foundation, and operated through the National Academy for State Health Policy, an independent diagnostic assessment<sup>6</sup> of Massachusetts has found churning among children to be an area for potential improvement. The state is responding with an action plan that aims to increase retention, improve data use and capacity, and improve customer service. EIPP, FOR Families, and other home visiting programs, when working with their clients and homeless families, will continue to assess health insurance status and work with families to enroll them and their children as needed.

Efforts will be made to enhance capacity for electronic, on-site SBHC access to MassHealth and Connector programs enrollment and to provide or assure training in how to utilize this computerized system.

With virtually all children in the Commonwealth having either public or private insurance, our focus is on assuring timely and appropriate use of health care services and on promoting high quality care for all. We will also be closely monitoring the potential impact of national health care reform under the Patient Protection and Affordable Care Act, both for possible conflicts with current Massachusetts regulations and procedures and for additional opportunities to further improve both health insurance availability and covered services.

**Performance Measure 14:** *Percentage of children, ages 2 to 5 years, receiving WIC services with a Body Mass Index (BMI) at or above the 85th percentile.*

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective		34	34	34	33.5
Annual Indicator	34.1	34	33.8	33.5	33.5
Numerator					
Denominator					
Data Source				Mass. WIC Program data	Mass. WIC Program data
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional
	2010	2011	2012	2013	2014
Annual Performance Objective	33	33	32	32	32

**Notes - 2009**

Data Source: Calendar year 2009 Massachusetts WIC Program PedNSS data are not yet available from the CDC report. We have estimated a rate similar to 2008.

**Notes - 2008**

Data Source: Final calendar year 2008 Massachusetts WIC Program PedNSS data, from the CDC report. The rate has again dropped slightly from the previous year.

**Notes - 2007**

Data Source: Final calendar year 2007 Massachusetts WIC Program PedNSS data, from the CDC report. The rate has dropped slightly from the previous year.

**a. Last Year's Accomplishments**

WIC is a unique health and nutrition program serving women and children with--or at risk of developing--nutrition-related health problems. Designed to influence lifetime nutrition and health behaviors, WIC provides nutrition education and counseling, free nutritious food and access to health care to low- to moderate-income pregnant women, infants and kids under five. WIC plays an important role in assisting families in achieving positive nutritional habits and healthy weights.

Program participation reflects emphasis on services to high-risk and minority populations: 31% of participants are Hispanic, 19% Black, 5% Asian/ Pacific, <1% were Native American, and 45% White. Fifty-four percent of participants were classified as high risk due to factors such as low hemoglobin/hematocrit, or other nutrition related medical conditions. A total of 217,811 individuals and their families received WIC benefits at least once during FY09. Twenty-nine percent of participants were pregnant, breastfeeding or non breastfeeding postpartum women, 30 % were infants and 40 % were children under five.

According to calendar year 2008 Massachusetts PedNSS data from the CDC report, 16.8% of 2-5 year olds had a BMI >95% for their age and 16.7% were between 85th and 95th percentile of BMI for age. For comparison, in 2007 the rates were 16.8% and 17.0% and the national 2008

PedNSS findings were 14.8 % and 16.4% respectively. This data indicates that Massachusetts rates for overweight in children have remained stable.

In 2009, the Massachusetts WIC Nutrition Program began planning for the implementation of the new WIC food package containing whole grains, lowfat dairy and fruits and vegetables. In anticipation of the October 2009 roll out of the new foods, Massachusetts WIC initiated the "Mooove to Lowfat Milk" campaign in the spring of 2009 to encourage all women and children over the age of two to choose fat free or 1% milk.

The Massachusetts WIC Nutrition Program continued to provide nutrition services consistent with the "Touching Hearts and Minds: Using Emotion-Based Messages to Promote Healthy Behaviors" initiative in both individual appointments and in facilitated group discussions with WIC parents. New educational materials related to healthy eating behaviors for WIC participants were designed using this model.

The WIC Program implemented year two of a three-year USDA Special Projects Grant, "Getting to the Heart of the Matter: Using Emotion-Based Techniques to Implement the Value Enhanced Nutrition Assessment" (GHM) to expand on the success of the Touching Hearts, Touching Minds project. This initiative explores the use of emotion-based techniques in WIC eligibility determination process to use as a springboard to meaningful and productive nutrition education sessions. This process builds on staff's current skills in rapport building, establishing counselor-participant trust, creating an environment for open discussion and effective identification and prioritization of the participant's personal goals and needs regarding nutrition behaviors. Year two of the grant focused on pilot testing of new assessment tools and techniques in six local WIC programs.

Massachusetts WIC completed the first year of the Breastfeeding Performance Improvement Project designed to increase breastfeeding duration as an intervention to promote healthy weights in children. In addition, all staff statewide received training on the Happiest Baby on the Block program as a method of increasing their skills in teaching parents methods to calm their fussy babies without overfeeding.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. WIC local programs screen and assess BMI and provide caregivers with information regarding child's weight.	X			X
2. Provide caregiver messages included in "Steps to Healthy Weight in Children" which promote good nutrition and feeding patterns and encourage physical activity.		X		X
3. Partner with medical providers to coordinate nutritional care and provide consistent nutrition and physical activity messages to promote healthy weights, utilizing both the Weigh of Life and Touching Hearts messages and materials.	X	X		X
4. Provide training to nutrition staff on approaches to talking effectively with parents about their child's weight and ways to ensure a healthy weight for their child, highlighting emotion-based, participant-centered model.				X
5. WIC staff utilizes emotion-based service methodology to provide WIC families with messages about healthy eating, increased physical activity, and healthy weights, utilizing Touching Hearts, Touching Minds materials.		X		X

6. Annually communicate trends in state and local WIC program rates for children with BMI's at or above 85th percentile, review current efforts and strategize individual program activities and initiatives to improve rates.				X
7. Implement USDA's Value Enhanced Nutrition Assessment initiative to ensure the completion of a participant-centered nutrition assessment process.				X
8. Through the Getting to the Heart of the Matter grant activities achieve a nutrition assessment interaction that is emotion-based and participant-centered.				X
9. Develop weekly messages for Mix 98.5FM Nutrition Buzz promoting healthy eating and physical activity.			X	X
10.				

#### **b. Current Activities**

Continue the pilot phase of the "Getting to the Heart of the Matter" in 6 local WIC programs, using client-centered, emotion-based based tools and techniques to perform more meaningful, productive nutrition assessment and set the stage for behavior change. Engage in the evaluation component of the project to determine the most effective methods and tools.

The NETF and TOTE provide activities to promote healthy weights, review education materials, provide healthy recipes and focus on staff wellness for the WIC Program and other public health staff across the state.

Continue to develop weekly healthy weight messages for young children for Mix 98.5FM Nutrition Buzz. Promote healthy eating messages through the Department's Mass In Motion initiative.

Implement the new WIC food package, increasing participants' access to whole grains, lowfat dairy and fresh fruits and vegetables. Pilot cooking classes utilizing Operation Frontline curriculum to WIC & Head Start families.

Continue performance improvement and launch social marketing projects to promote breastfeeding. Expand the Happiest Baby on the Block project to certify educators and provide classes to new WIC parents.

#### **c. Plan for the Coming Year**

Continue ongoing activities.

Continue to support the Implementation of the new WIC food package, which supports healthy weight in children by providing fruits, vegetables, whole grains and lowfat milk. Incorporate any changes instituted by USDA upon release of the Final Rule.

Continue partnering with medical providers and focusing on the shared messages to encourage healthy weights and to facilitate the implementation of the new WIC food package.

Based on completion of the evaluation phase of the GHM grant, plan for refinement and roll out of emotion-based tools and techniques for the nutrition assessment process.

**Performance Measure 15:** *Percentage of women who smoke in the last three months of pregnancy.*

## Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective		6	6	9	9
Annual Indicator	6	6	9.2	9.3	9.3
Numerator					
Denominator					
Data Source				Mass. PRAMS	Mass. PRAMS
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	2010	2011	2012	2013	2014
Annual Performance Objective	9.3	9.3	9.3	9.3	9.3

### Notes - 2009

Data Source: Massachusetts PRAMS. 2009 PRAMS data are not yet available. We have estimated a similar rate to that for 2008 (also estimated).

### Notes - 2008

Data Source: Massachusetts PRAMS. 2008 PRAMS data are not yet available. We have estimated a slight improvement based on the 2007 data.

### Notes - 2007

Data Source: Massachusetts PRAMS. This is the first PRAMS data available in the state. MA PRAMS sampled women who were Massachusetts residents and delivered a live-born infant within the state, including infants who died after delivery and multiples up to triplets. In 2007, 9.2% of women smoked cigarettes during the last 3 months of pregnancy (95% CI: 6.8 – 11.5) according to PRAMS. Among the same population of women, 6.6% reported on the birth certificate that they had smoked cigarettes at any time during pregnancy (95% CI: 4.5 – 8.7). Among all PRAMS states, MA has the third lowest prevalence of cigarette smoking during the last 3 months of pregnancy (most recent national PRAMS data available is 2003).

Differences between these initial PRAMS survey data and the smoking during pregnancy data from the birth certificate (see State Performance Measure #02) are being analyzed. The PRAMS data suggested higher rates of smoking during pregnancy than reported from the birth files (although the wide confidence intervals for both overlap). This external validation source (PRAMS) may result in further efforts to improve the quality and reliability of the birth certificate data in future years.

In the interim, we have adjusted our future performance objectives to be more in line with PRAMS data and realistic expectations of rates of reducing smoking, particularly in the face of major state budget cuts to a number of smoking cessation efforts. The result is that there are some discrepancies between the future performance objectives shown here for NPM #15 and for SPM #02. One result of the analyses mentioned above and described in our FY09 Planned Activities for these measures, will be a more formally coordinated set of projections.

### a. Last Year's Accomplishments

See State Performance Measure # 2, which monitors the percentage of women who report not smoking at any time during their pregnancy. Most of the Commonwealth's extensive efforts to reduce smoking during pregnancy are reported under that measure. In addition, given that teen

mothers are more likely to smoke than older women, see state priority #2, improve adolescent health through youth development and risk reduction, which highlights adolescent-related smoking prevention and cessation. This report for NPM #15, smoking in the third trimester, highlights activities that are focused on smoking cessation after a pregnancy begins.

Data about smoking during the third trimester are not available on the Massachusetts birth certificate. PRAMS, which asks a representative sample of Massachusetts women who gave birth about smoking in the third trimester, reported preliminary findings in 2008 (for calendar 2007) about smoking in the third trimester.

2008 PNSS data indicated that 11.3% of low income women participating in the Massachusetts WIC program smoked during their last 3 months of pregnancy, a decrease from 11.9 in 2007 and from 12.4 in 2006.

Due to reductions in funding, the Massachusetts Tobacco Control Program (MTCP) Smoker's Helpline to promote services and materials tailored for pregnant women who smoke has been discontinued, along with its programs at rural birth hospitals in Western Massachusetts to train hospital and community-based healthcare providers to conduct and track brief interventions with pregnant smokers. Both programs had been showing good success at reducing smoking rates.

Pregnant women and women with young children continued to have access to smoking cessation benefits through the new MassHealth smoking cessation benefit. MTCP had provided extensive technical assistance to help MassHealth design a smoking cessation benefit that provided counseling and pharmacotherapy for pregnant women and women with young children. This benefit has been widely used.

The Community Based Services for Women of Reproductive Age and Adolescents program was ended during FY2009 due to state funding cuts.

In FY09, EIPP and FRESH Start, home-visiting programs targeting pregnant women, screened, provided brief intervention and offered referrals for pregnant women. FRESH Start works exclusively with substance using women and has high rates of smoking among their clients. Staff have been trained in motivation interviewing to impact behavior change.

MTCP conducted analysis in FY 09 to assess the amount of underestimate of smoking on the birth certificate. The analysis is complete and a report is being revised prior to release.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. FOR Families and EIPP home visitors screen and assess for tobacco use at regular intervals during pregnancy and postpartum, and make referrals as needed. Formal collaboration with MTCP and QuitWorks provides smoking cessation services.		X		X
2. WIC services assess for smoking during pregnancy and provide information and counseling on smoking cessation, offering enrollment into QuitWorks, a smoking cessation program and assisting interested women enroll.		X		X
3. PRAMS collects information from new mothers between 2 and 6 months postpartum, specifically assessing the proportion of women giving birth in Massachusetts who smoke in the last three months of pregnancy.				X

4. The MCH program works closely with the Massachusetts Tobacco Control Program (MTCP) on program development, new initiatives, training and technical assistance.				X
5. EIPP home visitors collect this data element for all EIPP enrolled pregnant and postpartum women.				X
6. See also State Performance Measure #2, which reports additional Massachusetts activities to prevent smoking at any time during pregnancy.				X
7. See also State Priority #2, improve adolescent health through coordinated youth development and risk reduction, for adolescent-focused activities.				X
8.				
9.				
10.				

#### **b. Current Activities**

See State Performance Measure # 2 and state priority # 2, where most of the Commonwealth's extensive efforts to reduce smoking during pregnancy are reported.

PRAMS analyses for 2008 were finalized in collaboration with the Centers for Disease Control and Prevention PRAMS team.

We plan to report the prevalence of cigarette smoking in the last 3 months of pregnancy over 3 years when available (2 years for FY10), to improve the precision of our estimates and continue the validation study which is underway comparing smoking reported on birth certificate and PRAMS.

Home-visiting programs (EIPP and FRESH Start) continue to screen, provide brief intervention and referrals for pregnant women who smoke using motivational interviewing techniques.

In FY09, 23% of EIPP Participants reported tobacco use at intake and 18% of EIPP Participants reported smoking during the last three months of their pregnancy. EIPP staff continue to provide extensive counseling support for participants who use tobacco.

#### **c. Plan for the Coming Year**

Continue ongoing activities.

Due to continued budget restrictions, the Massachusetts Tobacco Control Program will be unable to restart any of the programs discontinued in FY09 or FY10.

Reporting the prevalence of cigarette smoking in the last 3 months of pregnancy over time from the PRAMS database will continue as additional years of data become available. This will improve the precision of our estimates and enhance our understanding of related maternal characteristics, risk factors, and sub-populations to target for interventions when funds permit. All staff from home-visiting programs for pregnant women will receive training and information on screening, providing a brief intervention and referrals for clients who smoke using motivation interviewing techniques.



**Performance Measure 16:** *The rate (per 100,000) of suicide deaths among youths aged 15 through 19.*

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective	5	4.3	4.3	4.3	4.2
Annual Indicator	4.5	3.7	3.6	3.5	4.1
Numerator	19	16	16	16	
Denominator	420641	431669	442849	453532	
Data Source				Mass. Vital Records	Mass. Vital Records
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Provisional	Provisional
	2010	2011	2012	2013	2014
Annual Performance Objective	4.1	4	4	4	4

**Notes - 2009**

2009 death data are not available. We have estimated a higher rate for 2009 and beyond than that for 2008; this is more in line with the secular trend, once a sharply lower number of suicides in 2006 is removed from the 3-year average in the final 2009 calculations. See 2008 for the most recent data and see the Note for 2008 for data sources and other comments.

**Notes - 2008**

Data on deaths are taken from MDPH Vital Records for calendar years 2006 - 2008. The 2008 data are the most recent available. Rates are calculated as rolling 3-year averages. (I.e. the 2008 numerator is the sum of the 2006, 2007, and 2008 numbers of deaths (11, 19, and 19 respectively) and the denominator is the sum of the most recent Massachusetts population estimates for the age group for the same years, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

**Notes - 2007**

Data on deaths are taken from MDPH Vital Records for calendar years 2005 - 2007. Rates are calculated as rolling 3-year averages. (I.e. the 2007 numerator is the sum of the 2005, 2006, and 2007 numbers of deaths (18, 11, and 19 respectively) and the denominator is the sum of the Massachusetts population estimates for the age group for the same years, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

**a. Last Year's Accomplishments**

See also Priority Need # 9.

MDPH received its 7th year of state funding for a Suicide Prevention Program. With leadership and funding from the Program, activities for adolescents, their parents, teachers and caregivers included:

The 8th Annual Suicide Prevention Conference was held with participation by 900 providers and advocates.

SOS (Signs of Suicide) kits were received by 25 Massachusetts middle schools and 75 staff trained to implement the program.

The Massachusetts Strategic Plan for Suicide Prevention was revised and distributed by Program staff and the MA Coalition for Suicide Prevention.

DMH and the Program are collaborating to offer suicide prevention training to staff of the 500 residential programs who serve children and youth.

Six AMSR trainings were held for 360 mental health clinicians.

The SAMHSA grant trained 400 foster parents and Department of Social Service social workers in suicide prevention. The Department of Youth Services served 25 families and trained 150 DYS staff.

QPR (Question Persuade Refer, national recognized) certified gatekeeper instructors conducted 22 trainings for 800 participants. More than 90% of attendees reported an increase in knowledge of signs of suicide and confidence in intervening with a person at risk.

American Foundation for Suicide Prevention training was given to 60 facilitators on how to lead survivor support groups.

The Program assisted three communities to develop prevention strategies in response to several youth suicides.

The Program continues to disseminate suicide prevention materials.

The ESHS school districts reported 59,534 student encounters in which mental health counseling was the primary reason for the visit; 40% of the ESHS districts had emotional support groups for students, with an average of 87 meetings and 205 student participants monthly. In addition, 19% of the ESHS districts provided anger/conflict/violence management support groups with an average of 17 group meetings and 109 student participants monthly. Nurses reported diagnoses of depression at a rate of 11.8 per 1,000 students in the ESHS districts.

The Northeastern University School Health Institute and the School Health Unit provided the following mental health programs: (a) a presentation on mental health, the school nursing role and documentation was added in FY09 to the orientation program for new school nurses this year; 246 attended and a similar number attended in FY10, (b) prevention of health risks to GLBQ students with 26 attendees, (c) mental health updates for school nurses with 31 attendees. An online program, a joint effort of MDPH, CHMC and the SHI, has been placed on the SHI website.

In FY09, 16.41% of students aged 15 through 19 years who had at least one visit to the SBHC were identified to be at risk for depression. Of these students, 97.58% were assigned a follow up plan by the SBHC clinician. 1.46% of students ages 15 through 19 who had at least one visit to the SBHC were identified to be at risk for suicide attempt. Per the SBHC standards, clinicians are required to develop skills necessary to identify the level of acuity/response needed. They are skilled in offering an initial face-to-face therapeutic response to reduce immediate risks of danger in student who are expressing suicidal threats or demonstrating escalating behaviors. SBHC clinicians have extensive knowledge of referral networks in their communities including psychiatric stabilization services and urgent psychopharmacology intervention. All students identified with a 'suicide plan' are referred for immediate crisis intervention to stabilize them safely. SBHC clinicians collaborate with other treatment providers to ensure that risk management/safety plans are well developed and monitored with vigilance.

Questions were included on the 2008 BRFSS survey specific to suicide and survivors in order to gather additional data on suicidal behavior in the Commonwealth.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. The Suicide Prevention Program carries out a comprehensive array of suicide surveillance, intervention and prevention activities, seeks to identify adolescents at risk for suicidal behavior and intervene with an appropriate preventive strategy.	X	X		
2. Safe Spaces for Gay, Lesbian, Bisexual and Transgender Youth Program addresses suicide risk amongst GLBT youth; working with community based providers to create safe spaces within schools and communities that promote healthy youth development.			X	X
3. Extensive training and technical assistance is provided to SBHC clinicians and school nurses (ESHS) in mental health and suicide screening and prevention, and they screen and refer for treatment.				X
4. Collect input from adolescent residential facility program managers about their suicide prevention needs, develop curriculum and provide ongoing training.			X	X
5. Provide postvention services with suicide survivors and affected schools through a statewide contract.	X			
6. Sponsor trainings, an annual conference, and seminars on suicide prevention; promote and use curricula for various providers. Distribute Signs of Suicide® (SOS) program kits and train schools to implement. Update data and prevention resources.				X
7. School nurses do assessment and referral for depression and other mental health issues for children in grades K-12. This is a requirement of the ESHS grants and the School Health Manual provides information on this subject.		X		X
8. SBHC standards require annual risk and resiliency assessments with validated screening instruments. All clinicians are trained in the child symptom checklist. Several use SOS and others use additional validated instruments (including MHP-Q9).		X		X
9. . Implement a federal SAMHSA grant focused on at-risk youth in the DSS and DYS population. Train DSS foster parents and case managers in suicide sign recognition and intervention skills and strategies.				X
10. Through the SAMHSA grant, guide families of DYS youth in how to help their suicidal sons and daughters and train DYS staff in suicide sign recognition and intervention skills and strategies.		X		X

**b. Current Activities**

See also Summary Chart and Priority # 9

The 2-day Suicide Prevention Conference was attended by 900 providers and advocates

Work was begun to adapt a national suicide prevention online training for teachers to be used in Massachusetts.

The SAMHSA-funded youth suicide prevention program ended after training 1,200 foster parents and 285 DSS social workers

Two QPR Instructor Certification Trainings were held at no cost to 80 EMS members and youth workers. The certified QPR trainers conducted 25 trainings in which 355 individuals participated

DPH staff participated in all Massachusetts Coalition for Suicide Prevention activities and provided technical assistance and funding for a Regional Coalition Development Coordinator.

9 full-day AMSR trainings by a nationally certified instructor were held for 475 clinicians at locations in various parts of the state

3 graduate schools of social work were awarded grants to study suicidal behavior among immigrants, Latinos and homeless youth.

35 facilitators were trained to lead survivor support groups through a partnership with the American Foundation for Suicide Prevention

The Program assisted the Postvention Provider to develop intervention strategies for four communities in response to multiple suicide deaths of young people.

### **c. Plan for the Coming Year**

See also Priority Need # 9.

Continue ongoing activities to build sustainability of substantial new activities implemented in this area during FY09 and FY10.

Continue to develop ongoing training of teachers using an online gatekeeper training module specific to Massachusetts.

The SBHC program will continue to support enhanced mental health/substance abuse services in the funded SBHCs with the goal of disseminating identified best practices throughout the state network of SBHCs. The program will continue to host training for primary care clinicians on youth mental health disorders including recent developments in the prevention and treatment of depression and psychosis in adolescent and young adults.

There will be six regional conferences on mental health through the James Levine Corporation and the School Health Institute in FY11; these will be open to all school nurses.

The Northeastern Region is working on re-entry planning with mental hospitals in order to ensure student safety after hospitalization.

A second round of the SAMHSA-youth suicide prevention program has allowed funding of 3 areas of the state with higher than average rates of youth suicide and/or self-injury. Each area is conducting a needs assessment and formulating a strategic plan for youth suicide prevention to be implemented during the course of this 3-year grant.

**Performance Measure 17:** *Percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates.*

## Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	86	88	86	86	88.5
Annual Indicator	85.6	85.5	88.5	85.7	86
Numerator	887	826	886	798	
Denominator	1036	966	1001	931	
Data Source				Mass. Vital Records	Mass. Vital Records
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	86.5	87	87	87.5	87.5

### Notes - 2009

2009 birth data are not available. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

### Notes - 2008

Data on VLBW, birth hospitals, and resident births are from MDPH Vital Records for calendar year 2008, the most recent data available. The nine Level III units are at Baystate Medical Center, Beth Israel Deaconess, Boston Medical Center, Brigham and Women's, Massachusetts General Hospital, Medical Center of Central Massachusetts, New England Medical Center, South Shore Hospital, and St. Elizabeth's Medical Center. Data include only those resident births that occurred in-state at Massachusetts hospitals, as the birth file used for analysis does not contain the necessary information (specific hospital of birth) for births to residents at out-of-state facilities to be categorized by Level III facility. In one region of the state enough births occur out-of-state (in Rhode Island) to distort the statistic otherwise.

The rate did not improve in 2008, reverting to the rate in 2005 and 2006. We have adjusted annual performance objectives downward slightly for future years.

### Notes - 2007

Data on VLBW, birth hospitals, and resident births are from MDPH Vital Records for calendar year 2007. The nine Level III units are at Baystate Medical Center, Beth Israel Deaconess, Boston Medical Center, Brigham and Women's, Massachusetts General Hospital, Medical Center of Central Massachusetts, New England Medical Center, South Shore Hospital, and St. Elizabeth's Medical Center. Data include only those resident births that occurred in-state at Massachusetts hospitals, as the birth file used for analysis does not contain the necessary information (specific hospital of birth) for births to residents at out-of-state facilities to be categorized by Level III facility. In one region of the state enough births occur out-of-state (in Rhode Island) to distort the statistic otherwise.

Revised Hospital Licensure Regulations for Maternal-Newborn Services did not change the hospitals that we consider to have Level III units. Therefore the data reported are from the same nine hospitals as in previous years. The percentage of VLBW infants delivered in these 9 sites continues to fluctuate slightly and may be improving slightly, perhaps reflecting the impact of new regulations on the perinatal regional system and the facilities considered to be appropriate for high-risk deliveries and neonates. We are therefore treating the 2007 birth data as a new

baseline. The impact of the regulatory changes on the system and on the resulting data is described in the narrative and will continue to be monitored in future years.

#### **a. Last Year's Accomplishments**

See also NPM 15 and SPM 9.

After concerns about the smaller percentage of VLBW infants born at Level III facilities in Massachusetts, revised state Hospital Licensure Regulations (105 CMR 130.000) governing maternal and newborn services were promulgated by DPH and put into effect in March 2006. Since the regulations were promulgated, the BFHN and the Bureau for Health Care Safety and Quality (BHCSQ) have been collaborating on a system of reviewing services in each birth hospital to determine an appropriate level designation. To date, 35 of the 49 active Massachusetts Birth Hospitals have been surveyed and re-designated.

In FY09, the MDPH Medical Director assumed the position of joint-chair of the Perinatal Advisory Committee (PAC) whose members represent all hospital levels of care, all regions in Massachusetts, and each professional organization identified as a key stakeholder (e.g. MA ACOG, MCAAP, MNA, Mass. Medical Society). The PAC advises DPH on maternal and newborn policy and regulations, advises on regulation waiver requests and monitors the impact of the regulatory changes on care. In addition to reviewing where VLBW infants are born, the PAC addressed other strategies to improve the standard of care for neonates including the need to standardize protocols for treatment of substance exposed newborns; establishing a statewide neonatal death review process; and supporting policies that would encourage exclusive breastmilk feeding in birth hospitals.

Additionally, in FY08 a request submitted to the Department's Human Research Review Committee for a perinatal data review project to establish a process to review preterm births at all hospital levels to determine factors that may enhance perinatal outcomes. This request was approved in FY09, and the perinatal data group has begun to gather and analyze aggregated, de-identified data to report back to the PAC. The purpose of these reports is to provide the information needed for the PAC to make clinical and systems recommendations to increase the percentage of VLBW infants born at appropriate facilities for their medical needs.

**Table 4a, National Performance Measures Summary Sheet**

<b>Activities</b>	<b>Pyramid Level of Service</b>			
	<b>DHC</b>	<b>ES</b>	<b>PBS</b>	<b>IB</b>
1. Perinatal regulations are monitored to ensure women and infants receive the most appropriate care for their medical needs and to reflect current state of practice at Level II and Level III hospitals.				X
2. Perinatal primary care providers screen for risk conditions and refer to appropriate level of care.	X	X		
3. The Perinatal Advisory Committee (PAC) brings multiple hospital level and professional discipline perspectives to bear on ongoing implementation of the regulations.				X
4. Per the regulations, hospitals collect infant and maternal indicators. Level IIIs must participate in the Vermont Oxford Network, providing NICUs reliable, confidential data for quality management, improvement, internal audit and peer review.				X
5. The PAC data subcommittee functions as a research body that operates under the guidance of a 24AB and reports relevant (aggregated – de-identified) results to the PAC to inform their decision-making/policy development process.				X

6. In collaboration with DPH Bureau of Health Care Safety and Quality (BHCSQ), a special project status has been established through the hospital regulatory process that allows a Level II B hospital to provide Short Term Mechanical Ventilation (STMV).				X
7. BFHN and MDPH BHCSQ survey and conduct site visits of hospitals and review compliance with new regulations.				X
8. Home visiting programs screen for risk conditions and refer to appropriate level of care.				X
9. Through the Perinatal Disparities project, MDPH works with communities to use local data on VLBW infants to identify program priorities and policies to address VLBW and preterm birth (see SPM #9).		X		
10.				

#### **b. Current Activities**

Level III hospitals and those with an identified concern for the standard of care being provided were prioritized for on-site surveys by BFHN/BHCSQ staff of hospitals requesting a change in level of care. Since the regulations were promulgated in 2006, 35 of the 49 operational facilities subject to the regulations were surveyed. Of these, 29 are completed and six are pending. Services that have not been surveyed include 12 -- level 1A; one level 1B; and one level 2A.

The Betsy Lehman Center for Patient Safety and Medical Error Reduction completed a report with extensive input from an expert panel on obstetrics, with a focus on labor and delivery. Title V worked with the Betsy Lehman Center to disseminate the results and recommendations from the committee with a focus on developing standardized protocol to reduce medical error. Recommendations are grouped into several topic areas: Electronic Fetal Monitoring; Cesarean Births (including Trial of Labor after Cesarean (TOLAC)); Disparities in Perinatal Outcomes; Inductions; and Staffing and Communications. In addition, several members of the expert panel agreed to collaborate with members of the Maternal Mortality and Morbidity Committee to develop protocols for addressing hemorrhage in the obstetric setting.

#### **c. Plan for the Coming Year**

Continue ongoing activities.

Building on the report on Patient Safety and Medical Error Reduction, Title V will continue to work with the Betsy Lehman Center to disseminate the results and recommendations from the committee with a focus on developing standardized protocol to reduce medical error. Recommendations are grouped into several topic areas: Electronic Fetal Monitoring; Cesarean Births (including Trial of Labor after Cesarean (TOLAC)); Disparities in Perinatal Outcomes; Inductions; and Staffing and Communications. The report also includes a section developed in collaboration with the Maternal Mortality and Morbidity Committee recommending protocols for addressing hemorrhage in the obstetric setting.

The Perinatal Data Workgroup will continue to work closely with the DPH Privacy and Data Access Office (PDAO) to implement the Perinatal Data Review Project. The goal of the project is to 1) monitor outcomes of mothers and infants over time to measure the success of the revised maternal and newborn hospital licensure regulations in assuring all mothers and infants receive care at a hospital licensed at the appropriate level for their needs and 2) to measure whether the regulations help reduce maternal, fetal and infant morbidity and mortality.

MDPH plans to complete hospital surveys of the remaining 12 Massachusetts birth hospitals and will continue to work with each hospital to implement an improvement plan based on the outcome of their survey. MDPH staff will provide technical assistance as needed in implementing hospital based improvement plans and will assess the ratio of VLBW infants in each Massachusetts

region to determine whether an adequate number of NICU beds exist in each region, or that a well functioning system of transfer of VLBW requiring level III services is in place to ensure that high-risk deliveries are managed in these hospitals.

MDPH will continue to convene a workgroup composed of internal staff, providers, and academics to review birth statistics and identify two to three areas for greater focus. A focus on the continuing rise in gestational diabetes and cesarean births will remain. Additionally, a renewed examination of the rising disparities in perinatal outcomes will remain a priority for BFHN.

**Performance Measure 18:** *Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester.*

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	85	83	83	82	81.5
Annual Indicator	82.5	81.5	81.4	79.6	80
Numerator	63410	63326	63408	61292	
Denominator	76824	77670	77934	76969	
Data Source				Mass. Vital Records	Mass. Vital Records
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	80	80	80	80	80

**Notes - 2009**

2009 birth data are not available. We have estimated a similar rate to that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

We do not expect improvement in this rate for the foreseeable future, due to health care systems limitations in scheduling routine prenatal care within the first trimester of pregnancy.

**Notes - 2008**

Data are from MDPH Vital Records for calendar year 2008. This is the most recent year of data available.

The percentages shown differ from those published elsewhere, due to how missing data are handled. The MCHB definition of the denominator is specified as all resident births during the referenced year. In MassCHIP and most Massachusetts publications (such as Massachusetts Births), percentages are reported only for cases where information is known (i.e. the denominator excludes births for which data on the variable are missing). Using the MCHB definition reduces the calculated percentage slightly.



The percentage of women receiving prenatal care in the first trimester in Massachusetts continues to decline, from a high of 84.3% in 2001.

#### Notes - 2007

Data are from MDPH Vital Records for calendar year 2007. This is the most recent year of data available.

The percentages shown differ from those published elsewhere, due to how missing data are handled. The MCHB definition of the denominator is specified as all resident births during the referenced year. In MassCHIP and most Massachusetts publications (such as Massachusetts Births), percentages are reported only for cases where information is known (i.e. the denominator excludes births for which data on the variable are missing). Using the MCHB definition reduces the calculated percentage slightly.

The percentage of women receiving prenatal care in the first trimester in Massachusetts continues to decline, from 84.3% in 2001 to 81.4% in 2007.

#### a. Last Year's Accomplishments

See also SPM #9 and State Priority Need #10.

Massachusetts Pregnancy Nutrition Surveillance (PNSS) 2007 Statewide Summary Data Report indicated that 72.4% of women on WIC entered prenatal care in the 1st trimester. Prenatal care initiation during the first trimester improved since 1992 when the figure was 63.8%; this trend has leveled off or declined in recent years from over 75% in 2003. PNSS also indicated that 34.1% of pregnant women enrolled in WIC by the first trimester.

At local WIC program request, a poster emphasizing the benefits of early WIC enrollment was available to all WIC outreach staff.

All WIC clinics track, through quarterly reports, their progress for enrolling prenatal women in WIC in the 1st trimester. WIC outreach coordinators seek appropriate settings and strategies to outreach to women in early pregnancy. The state office works with community coordinators to identify and implement innovative local outreach strategies. Specific strategies to reach the prenatal population early are incorporated into each local programs annual outreach plan.

WIC launched a new performance management system including a measure related to early enrollment. Thus far, regular monitoring indicates that 40% of WIC participants entered the program in the 1st trimester in FY09.

To better understand the nature of disparities in care and outcomes, BFHN ODT staff conducted a comprehensive evaluation of EIPP, (a program serving very high risk women). EIPP data were linked with PELL data to conduct a population-based analysis comparing perinatal outcomes for EIPP participants with outcomes for a socio-demographically and geographically similar comparison group. Results of the evaluation demonstrated that compared to socio-demographically and geographically similar non-EIPP comparison group, EIPP Participants were more likely to be breastfeeding at time of hospital discharge and there were no differences in terms of hospital stay or charges.

**Table 4a, National Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. WIC and EIPP reach out in communities to pregnant women to encourage early enrollment into their programs, helping to		X		

reach women at risk of late entry to prenatal care.				
2. WIC services statewide refer for prenatal care at first contact with pregnant women.		X		
3. EIPP and FOR families programs provide assistance with accessing prenatal care and optimizing health benefits. EIPP has relationships with Managed Care Organizations (MCO's) to reimburse for home-visits to pregnant women.		X		
4. BFHN continues to strengthen collaborations with state and community partners to identify and address barriers to getting early prenatal care, for example, local federally-funded Healthy Start programs.				X
5. The state Healthy Start Program administered by MassHealth insures pregnant women not eligible for MassHealth at or below 200% FPL, in order to improve access to early, comprehensive, and continuous prenatal care.	X			
6. MassCARE assures prenatal care to HIV infected pregnant women through regional perinatal centers. The regional coordinators, all high-risk obstetric nurses, engage in case finding and educate community providers in treatment guidelines.	X			
7. Family Planning and other DPH-programs that include among their clients pregnant teens, as well as others at risk of late entry to care, encourage and help clients access prenatal care as early as possible.		X		
8. ODT performs statistical analyses with state birth data to monitor trends and assess populations at higher risk for late entry into prenatal care and related factors.				X
9. WIC disseminates quarterly reports to assist programs in tracking progress for enrolling women in the first trimester of pregnancy. Outreach strategies that have proven successful are shared and discussed among program outreach staff.				X
10. MDPH encourages all programs to take a life-course perspective on health care and programming leading to broad based consideration of preconception and interconception needs for all childbearing aged women.				X

#### **b. Current Activities**

See Summary Chart above and Priority Need #10.

PRAMS data on prenatal care timing and related factors are now being used for ongoing assessment. Counts and percentages for 2007-2008 first trimester care have been obtained. The findings were presented to the PRAMS Advisory meeting in May 2010 and suggestions for the MA PRAMS Surveillance Report were solicited. A fact sheet using PRAMS data on prenatal care entry by the first trimester was produced.

MA PRAMS analyses found that in 2008, 86% of mothers initiated prenatal care in the first trimester; mothers on Medicaid were less likely (76.2%) to do so than non-Medicaid mothers (92.7%). More than 80% of mothers received prenatal care deemed adequate or adequate plus as measured by the Kotelchuck Index. Medicaid women were more likely to receive inadequate or no prenatal care (16%) compared with women who had non-Medicaid insurance (7%). Women who were white, non-Hispanic (90.6%), aged 30-39 years (90.3%), college-educated (94.8%) or had non-Medicaid insurance (92.7%) were the only groups to reach the HP2010 target for early initiation of prenatal care. Leading causes among mothers reporting not receiving prenatal care as soon as they wanted were (not mutually exclusive): doctor or health plan would not start care as early as wanted (58.1%), couldn't get an appointment (51.4%), couldn't afford it (43.3%), too

many other things going on (29.9%), transportation (29.2%) and didn't have a Medicaid card (24.5%).

### c. Plan for the Coming Year

See also current SPM #9 and current Priority #10.

Continue ongoing activities.

We plan to expand analysis of data related to delay in prenatal care and develop processes to better understand the current environment, including barriers, in order to develop a plan to assure women obtain prenatal care as early as possible. Current information suggests that some providers are not booking first appointments until the beginning of the second trimester. Additional information to inform work in this area, for example, about OB/GYN availability, effects of insurance changes, availability of home pregnancy testing, and cultural beliefs affecting women's choices, is now available as part of the completed Title V needs assessment.

In addition, knowledge gained from the proposed RIM (Review of Infant Mortality) initiative will help both explicate the relationships between late entry into prenatal care and poor pregnancy outcomes and identify strategies to reduce both.

Determine feasibility in FY11 of expanding EIPP to additional high risk communities based on available state and federal funds.

MDPH will continue to seek opportunities to encourage preconception and interconception care as part of taking a life-course perspective on women's health and maternal and child health. In this context, discussing both the need to plan pregnancies, and receive early prenatal care becomes part of any health care discussion with women at each health care visit.

## D. State Performance Measures

**State Performance Measure 1:** *The percentage of pregnancies among women age 18 and over that are intended.*

### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective	76	76	76	79	80.3
Annual Indicator	75.6	78.4	78.4	80.3	80.3
Numerator					
Denominator					
Data Source				Mass. BRFSS bi-annual survey	Mass. BRFSS bi-annual survey
Is the Data Provisional or Final?				Final	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	81	81	82	82	

**Notes - 2009**

There are no updated data for 2009. The data for this measure are available every other year from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). The 2009 estimate is from the 2008 survey data. See the Detail Sheet (in Form 16) for this measure for definitions, data source and issues, and a discussion of its significance.

#### **Notes - 2008**

The data for the measure are available every other year from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS); the current survey data are for 2008. See the Detail Sheet (in Form 16) for this measure for definitions, data source and issues, and a discussion of its significance.

Our projected target rates have been raised again slightly, based on the continued improvement shown in the 2008 survey.

#### **Notes - 2007**

There were no updated data for 2007. The data for this measure are available every other year from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). The 2007 estimate is from the 2006 survey data. See the Detail Sheet (in Form 16) for this measure for definitions, data source and issues, and a discussion of its significance.

Our projected target rates have been raised, based on the 2006 improvements.

#### **a. Last Year's Accomplishments**

See also NPM #8 and SPM #3.

Family planning services funding decreased by 11% in FY09, due to state budget cuts. This forced many family planning agencies to consolidate their funding into clinical services and away from community education and outreach efforts. Funding for these efforts decreased from 29% to 23% of total funding during FY09.

In January of FY09, the AIDS Action Committee and MDPH launched <http://www.mariatalks.com/>, the statewide sexual health hotline and website program targeted to adolescents, with the goal of providing accurate health information and referrals to family planning and related services. In the first 6 months of operation, the site received over 4,300 visitors.

To increase accessibility, one-page downloadable "Choosing a Birth Control Method" fact sheets were developed in English and translated into Chinese, Haitian Creole, Khmer, Portuguese, Spanish and Vietnamese, with new content on additional FP methods (e.g., Implanon and Cycle beads). Drafts were reviewed by family planning providers and focus groups of women in the target audience to ensure cultural competency and accuracy of translation. The "Choosing a Birth Control Method" brochure continues to be available in English, Spanish and Portuguese; over 20,000 brochures were distributed in FY09. The brochures and fact sheets are available online at [www.maclclearinghouse.com](http://www.maclclearinghouse.com).

A "Where can I get Plan B?" flow chart was developed and is downloadable on the Clearinghouse website. It provides information about what to do if one has had unprotected sex in the last five days. Action steps are described and MA resources are provided about how to obtain emergency contraception.

Because of the increased risk of unintended pregnancy among women experiencing domestic violence, an initiative started in FY07 continued in FY 09 to train all of the state funded family planning programs. Staff in most programs received the four-hour training or a follow-up training on intimate partner violence, connections to reproductive health issues and how to assess and care for family planning clients regarding domestic and sexual violence.

The FP Program continued to collaborate with Ibis Reproductive Health on a 3-year grant from

the National Campaign to Prevent Teen and Unplanned Pregnancy. REaDY (Reproductive Empowerment and Decision Making for Young Adults), is a coalition of Massachusetts health service providers, advocates, and researchers collaborating statewide to reduce unplanned pregnancy among young adults under health care reform. The initiative is to better understand individual, community, provider, and structural factors that influence the contraceptive behaviors of young adults aged 18-26 and develop strategies to ensure that they have the resources needed to lead healthy sexual and reproductive lives, including making decisions about whether/when to become parents.

FP staff coordinates the Abortion Access Committee, a forum for clinicians, health care organizations, public health advocates and government agencies to advise the DPH on the implementation of legislative mandates and on strategies that support reproductive healthcare and reduction of unintended pregnancy. The Committee presented an overview of abortion services in MA to the Commissioner of Public Health.

The Sharing Arrangement to improve statewide access to hospital based termination services for low-income and uninsured pregnant women continued. There was a 7% decrease in contacts and a 22% decline in eligible patients from FY08.

BFHN perinatal programs focused education on reproductive life planning for all women of childbearing age, with emphasis on preconception and interconceptual care within home-based and center-based programs; they consistently provide family planning information to postpartum women. Additionally, funding received from HRSA/MCHB for a social marketing campaign for new parents -- Massachusetts New Parents Initiative (MNPI) included family planning as part of the emotion-based messaging. Two digital stories specifically focused on family planning were developed: one from the perspective of a provider, and one from the perspective of a woman who made the difficult decision to give up her fourth child for adoption after contraception failed. The digital stories and discussion guides are included in a provider toolkit that offers suggestions for how providers can address family planning in the postpartum period.

**Table 4b, State Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Comprehensive clinical reproductive health care, community education and outreach are provided through a statewide family planning provider system.	X			
2. Reproductive health services are also provided through School Based Health Centers, and most ESHS programs.	X			
3. Family Planning and perinatal programs participate in planning and national, state and local collaborations to assure continued availability of basic reproductive health care.				X
4. Family Planning standards are set by MDPH; programs are monitored for adherence, including vendor site assessments and technical assistance.				X
5. FOR Families and EIPP home visitors assess women to determine family planning information and referral needs and follow-up referrals to family planning or primary care providers.		X		
6. Increase access to emergency contraception and sexual health services through a statewide website and hotline, and inclusion of EC information and protocols in all sexual assault evidence collection kits.	X	X		
7. Collaborate with BSAS in substance abuse prevention and services (including those for youth).			X	X

8. Improve surveillance of women of reproductive age through implementation of PRAMS, as well as questions already included in the BRFSS every two years.				X
9. Implement statewide sexual health hotline and website.		X		X
10. Train and support Family Planning providers to screen for and respond to intimate partner violence and sexual assault.				X

#### **b. Current Activities**

See also NPM #8, SPM #1 and #3, PN#9.

Family planning services funding was decreased by 10% in FY10 due to budget reductions. This is a total funding reduction of 20% since FY08 in the family planning program.

FP conducted 2 vendor site assessments in FY10.

Implementation and marketing of "Maria Talks" continued. The site will complete transition to a content management system and incorporate HIV components.

Russian and Arabic translations of the downloadable "Choosing a Birth Control Method" fact sheets are planned.

The Family Planning Program completed research with Ibis Reproductive Health on the impact of health care reform on low-income women's access to contraception and presented the final report to key stakeholders in early FY10.

Ibis will be completing two phases of the research related to the REaDY initiative, including a desk review of young adult plans and focus groups with young adults to inform actions led by a statewide, multi-agency taskforce chaired by the FP Program and coordinated by NARAL Pro-Choice Massachusetts. Research reports will be issued.

The Family Planning Program submitted for technical review A Profile of Family Planning Among MA Adults, 2006 - 2008, in collaboration with the Health Survey unit, to be released in FY11, combining BRFSS survey results from 2006 and 2008

BFHN is distributing provider toolkits for MNPI with information on how providers can effectively communicate and incorporate a reproductive health care plan for new parents.

#### **c. Plan for the Coming Year**

See also NPM #8, SPM #1 and #3, and continue ongoing activities.

Continue implementation of MariaTalks.com, the Statewide Sexual Health Hotline and Website. The site will increase access to information and referrals for EC, STD, family planning and related services. The substance use component of the site will be developed and implemented. Increased collaboration/links with other MDPH websites will occur and monitoring and evaluation of services will continue.

Continue the REaDY initiative. Ibis will be completing the last phase of the research, a provider survey, to inform actions led by a statewide, multi-agency taskforce chaired by the FP Program and coordinated by NARAL Pro-Choice Massachusetts. Based on the research results, the taskforce will identify strategies to improve reproductive services to young adults in the Commonwealth.

The Family Planning program will conduct 3 vendor site assessments in FY11.

The Family Planning program will continue with implementation of EC legislation, including development of materials specific for consumers including adolescents, the monitoring of hospital compliance with services to sexual assault survivors and the pharmacy access program. EC education materials and information will continue to be distributed to adolescent service providers.

MDPH Family Planning Program, in collaboration with the Health Survey unit, will be releasing "A Profile of Family Planning Among MA Adults, 2006 -- 2008."

The Massachusetts New Parents Initiative (MNPI), a HRSA/MCHB funded innovative social marketing project (begun in FY09), will continue to develop emotion-based messages and digital stories on new parents' experience receiving family planning messages from their providers. MNPI also developed a provider toolkit consisting of a training manual and resources. Over the next year the project will be orienting providers to the toolkit and providing information on how they can communicate family planning topics more effectively with their clients. The goal of this social marketing campaign is to improve communication between providers and new parents to encourage effective family planning. All materials developed are available on the MDPH website at [www.mass.gov/dph/newparents](http://www.mass.gov/dph/newparents).

**State Performance Measure 2:** *The percent of births to women who report not smoking during their current pregnancy.*

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective	91	92.5	92.5	93	93
Annual Indicator	92.5	92.5	92.3	92.9	93
Numerator	71098	71813	71949	71471	
Denominator	76824	77670	77934	76969	
Data Source				Mass. Vital Records	Mass. Vital Records
Is the Data Provisional or Final?				Final	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	93	93	93	93	

**Notes - 2009**

2009 birth data are not available. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

This SPM is being dropped, as we can now report on NPM # 15 with annual PRAMS data.

**Notes - 2008**

Maternal smoking during pregnancy and resident birth data are from MDPH, Vital Records for calendar year 2008. This is the most recent year of data available.

See the Detail Sheet for this measure for definitions of the numerator and denominator and a discussion of the limitations of the data. Early success slowed or reversed in 2002 and 2003, as funding for tobacco control activities was significantly reduced. Funding has become stabilized again and was growing, but at a lower level (although it is being reduced again in FY10), and we believe that our target levels are achievable.

The rates on Form 11 may differ from those published elsewhere, due to how missing data are handled. For comparability with other MCH Core Performance Measures related to pregnancy outcomes and birth statistics, we have defined the denominator for this Negotiated Measure as all

resident births during the referenced year. In other Massachusetts publications (such as Massachusetts Births), percentages are usually reported based on denominators from which birth records with information missing about the variable have been removed. The result is a lower apparent rate.

See also NPM # 15 and its 2008 note for other data issues that are being reviewed. Due to differences between reported smoking rates from the birth certificate and PRAMS (which do not contain data items for precise comparison), there are some discrepancies between the future performance objectives shown for SPM #02 and NPM #15 at this time. One result of the analyses mentioned above and described in our FY09 Planned Activities for these measures, will be a more formally coordinated set of projections.

We are not projecting any improvement in this rate from 2008 onward, primarily in light of some budget cuts in FY09 and larger additional cuts in FY10 due to the state budget crisis. These rates have previously been very sensitive to the level of state prevention and awareness programming.

#### **Notes - 2007**

Maternal smoking during pregnancy and resident birth data are from MDPH, Vital Records for calendar year 2007. See the Detail Sheet for this measure for definitions of the numerator and denominator and a discussion of the limitations of the data. Early success slowed or reversed in 2002 and 2003, as funding for tobacco control activities was significantly reduced. Funding has become stabilized again and was growing, but at a lower level (although it is being reduced again in FY10), and we believe that our target levels are achievable.

The rates on Form 11 may differ from those published elsewhere, due to how missing data are handled. For comparability with other MCH Core Performance Measures related to pregnancy outcomes and birth statistics, we have defined the denominator for this Negotiated Measure as all resident births during the referenced year. In other Massachusetts publications (such as Massachusetts Births), percentages are usually reported based on denominators from which birth records with information missing about the variable have been removed. The result is a lower apparent rate.

See also NPM # 15 and its 2007 note for other data issues that are being reviewed. Due to differences between reported smoking rates from the birth certificate and PRAMS (which do not contain data items for precise comparison), there are some discrepancies between the future performance objectives shown for SPM #02 and NPM #15 at this time. One result of the analyses mentioned above and described in our FY09 Planned Activities for these measures, will be a more formally coordinated set of projections.

#### **a. Last Year's Accomplishments**

See also NPM #15 for smoking cessation accomplishments targeting women after they become pregnant and Priority #2 for additional adolescent-focused accomplishments.

After several years of increases (from \$4.3M in FY06 to \$12.75M in FY08, funding for the Department's Massachusetts Tobacco Control Program (MTCP) was reduced in FY09 by another \$600,000 to \$12.15M.

In FY09, the Massachusetts Smoker's Helpline had 21,863 callers and Quitworks received 3,500 faxed referrals from professionals. Quitworks is a collaboration of MTCP with all major health plans linking providers and their patients who smoke to the state's cessation services. Quitworks is a fax service with a web-based system to expand capacity during high call times. It also includes an interactive quitting tool, articles from experts, follow-ups on real people who have quit, access to other resources, and e-postcards to encourage smokers who are trying to quit.

In FY09, grants continued with 27 community health centers to improve their clinical protocols and medical record systems to implement systems-level, evidence-based interventions to address tobacco use and 3 rural birth hospitals received grants to pilot systems change strategies to refer pregnant women to services and supports. [All of these programs were discontinued in



FY10 due to budget cuts.]

Community Smoking Interventions (CSIs), which address disparities in high need communities, continued in seven geographic areas. CSIs build on community connections, such as religious institutions, local advocacy groups and cultural organizations, to increase awareness and quitting, including among women of childbearing age. [In FY10, CSIs were greatly reduced or eliminated entirely due to state budget cuts.]

MTCP research indicated that support was an important part of women's decisions to quit. A Fight 4 Your Life ad campaign was designed to reach people in low socioeconomic groups with higher smoking levels. The ads targeting women appealed to their health concerns and also offered support and encouragement from other women who spoke from the heart about what it meant to them to successfully quit. In FY09, due to funding limitations, ads were only used in a few places and were associated with time-limited free nicotine patch give-away campaigns. [In FY10, no ad campaigns have been run due to further budget constraints.]

A 2-year MassHealth pilot of a smoking cessation benefit to Medicaid subscribers, whose smoking rate is 33% higher than the general population, has been made a general benefit, after it was shown to decrease smoking prevalence rates from 38% to 28%.

We analyzed and continued to collect PRAMS data to improve capacity to survey reproductive aged women throughout the Commonwealth, including the capacity to assess smoking within the last 3 months of pregnancy among Massachusetts women. A factsheet on smoking during pregnancy was produced and is currently under policy review.

The EI Smoke-Free Families Initiative continued in collaboration with the Institute for Health and Recovery, with education and materials dissemination in daycares and other community-based centers focusing on young children. The focus continues to be secondhand smoke awareness, with the offer of cessation.

In FY09, providers from EIPP, CHCs, and rural hospitals continued used the 5A counseling approach to assess interest to quit smoking and referred women to help with their smoking cessation goals.

School nurses in ESHS districts provided the following tobacco prevention/cessation services:

- 477 tobacco group prevention meetings were held in 28 districts, in which attendance summed to 13,387 students and 538 adults.
- 114 tobacco group cessation meetings were held in 25 districts, in which attendance summed to 507 students and 140 adults.
- Individual tobacco cessation counseling sessions were delivered to 1,675 students and 293 adults in 39 districts.
- In 21 of the districts, students were referred to other tobacco prevention/cessation services 285 times, and adults were referred to outside sources 43 times.

The Community Based Services for Women of Reproductive Age and Adolescents program was ended during FY09 due to state funding cuts.

**Table 4b, State Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. WIC, EIPP, and FOR Families assess pregnant women for smoking, and counsel and refer to smoking cessation services (Quitworks), in collaboration with MTCP.		X		
2. Continue surveillance of smoking among women of				X

childbearing age, including adolescents and pregnant women, through PRAMS, the BRFSS, YRBS, and YHS.				
3. MTCP directs multifaceted tobacco control program including Smokers Helpline, community programs, evaluation and surveillance, compliance checks, and smoke-free workplace.		X	X	X
4. The QuitWorks program, a collaboration of MTCP with all major health plans, links providers & their patients who smoke to the state's cessation services.		X		
5.				
6.				
7.				
8.				
9.				
10.				

#### **b. Current Activities**

See also NPM #15 for smoking cessation activities targeting women after they become pregnant and Priority #2 for additional adolescent-focused activities.

In FY10, state funding for the Massachusetts Tobacco Control Program was slashed from \$12.15M to only \$4.5M. As a result, a number of successful programs were curtailed or discontinued entirely.

The programs eliminated include grants to 27 community health centers to implement evidence-based interventions; grants to 3 rural birth hospitals to pilot systems change strategies to refer pregnant women to services and supports; Community Smoking Interventions (CSIs), which addressed disparities in 7 high need communities; and the Fight 4 Your Life ad campaign.

The Massachusetts Smoker's Helpline and Quitworks are still in operation, as is the EI Smoke-Free Families Initiative.

EIPP and FOR Families continue to screen all clients for smoking, and refer to smoking cessation programs. In addition, staff in both programs received updated training in screening, brief intervention and referral for smoking cessation.

#### **c. Plan for the Coming Year**

Ongoing activities continue as funding permits. See also NPM #15 for smoking cessation activities targeting women after they become pregnant and Priority #2 for additional adolescent-focused activities.

The Massachusetts Smoker's Helpline and Quitworks will still be operational in FY11.

EI, EIPP, FOR Families, A Helping Hand, FRESH Start and other home-visiting programs currently being proposed will continue an on-going collaboration with the Institute for Health and Recovery on the Massachusetts Smoke -- Free Families Initiative model of services to promote home visits and other services to at-risk families in order to integrate secondhand smoke awareness and cessation messages. The project, which targeted a few high risk communities, will be extended to other home-visiting programs. Training will be offered if feasible to home-visiting staff in DPH supported programs.

The PRAMS smoking fact sheet will be shared with Tobacco Prevention Program and will be widely disseminated.

**State Performance Measure 3:** *The percentage of women with an interpregnancy interval (IPI) less than 12 months.*

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective		17	13.5	13.5	13.8
Annual Indicator	13.8	13.8	14	14.2	14.2
Numerator					
Denominator					
Data Source				PELL (linked births, hosp. dischs, & fetal deaths)	PELL (linked births, hosp. dischs, & fetal deaths)
Is the Data Provisional or Final?				Provisional	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	13.7	13.6	13.6	13.6	

**Notes - 2009**

2009 birth data are not yet available. Therefore, no PELL analysis can be done to calculate I.P.I. for 2009. We have estimated a similar rate to that projected for 2007. This state measure is being dropped for next year.

**Notes - 2008**

2008 birth data are not yet available for linkage. Therefore, no PELL analysis can be done to calculate I.P.I. for 2008. We have estimated a similar rate to that projected for 2007.

**Notes - 2007**

Data Source: PELL (Pregnancy and Early Life Longitudinal) linked hospital discharge, birth and fetal death data.

The latest data available are for 2007. We have estimated a similar rate for 2008 and 2009. IPI was calculated using PELL. Starting with all deliveries from 2007, women were linked to previous deliveries between 2007 and 2000. For those who had delivered twice in 2007, the latest delivery was included. Then for all women with deliveries in 2007 we linked back to the most recent delivery if available or to the last reported live birth if we were unable to link to any earlier pregnancies. IPI is calculated as the time passed between the delivery date of the first pregnancy and the start of the second pregnancy, as defined by the delivery date minus gestational age.

We calculated IPI two different ways. First we calculated it based on the delivery date of the most recent pregnancy linked. We also calculated it based on the reported date of last live birth. When we were able to calculate IPI using the most recent linked pregnancy, we used that as the final IPI. When we were unable to link any earlier pregnancies, we used the IPI as calculated based on reported date of last live birth, if available, as the final IPI. IPI was not calculated for those women for whom we could not identify an earlier delivery and who did not report an earlier live birth.

Of the 78,540 women with deliveries in 2007, we identified 33,647 earlier deliveries. Of the 78,540 women, 76,530 were MA residents, for whom we identified 32,786 earlier deliveries. Although we were able to link back to only 32,786 earlier deliveries for MA residents, we were still able to calculate IPI for many of the women for whom we could not find deliveries because we

were able to use their reported date of last live birth. Consequently, the total number of MA residents for whom IPI was calculated was 41,962 out of the 76,530. Of the 41,962 MA residents for whom IPI was calculated, 14.0% had a short IPI defined an IPI less than twelve months. This is the final estimate for 2007.

#### **a. Last Year's Accomplishments**

Also see NPM#8 and SPM#1 for programmatic accomplishments related to this measure.

See the extensive Data Note above for 2007 for an explanation of how we calculate IPI and the data for the most current year, 2007. These final 2007 calculations were completed during FY09 and FY10.

Interpregnancy interval data was included in the 2007 annual birth report released in 2009. This report uses data from the Birth records alone, which includes the hospital's report of the date of last live birth. Inclusion of IPI as a measure in the Birth Report (using birth certificate data only) is now ongoing, which highlights the issue for a larger public.

IPI less than 6 months was also calculated. In the analysis, 5.6% of Hispanic women were identified as pregnant again within 6 months postpartum, which is a 15% declined compared to the previous year. IPI among Hispanic will continue to be monitored.

The Women of Reproductive Age and Adolescents Program was terminated during FY09 due to lack of funding.

**Table 4b, State Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. FOR Families and EIPP provide assistance to pregnant women with accessing prenatal health care and optimizing health benefits.		X		
2. FOR Families and EIPP offer family planning counseling and referrals to all enrolled women of childbearing age.		X		
3. Continue to improve surveillance of IPI and identification of high-risk groups and geographic areas through use of PELL data, PRAMS data, and Massachusetts Birth Data.				X
4. Encourage integration of IPI into needs assessments and program RFRs.				X
5. Integrate IPI measures into annual birth report and other MDPH publications and presentations to provide forums to discuss this issue.				X
6. Family planning providers counsel individual women pre- and inter-pregnancy about spacing pregnancies to achieve best outcomes.	X	X		
7. Report IPI related to birth outcomes in the annual release of birth certificate data.				X
8. The Massachusetts New Parents Initiative has chosen family planning as one of its social marketing focus areas.	X	X		
9.				
10.				

#### **b. Current Activities**

Also see NPM#8 and SPM#1.

IPI data was included in the 2008 annual birth report released in 2010. DPH continues to analyze findings about Hispanic women with IPI less than 6 months in depth and encourages the use of IPI for quality improvement.

WIC and EIPP providers seek to assure that women return for their 6 week postpartum visit, including discussion on pregnancy spacing and referral to family planning services as needed. An IPI of less than 16 months is among the risk factors that WIC staff determine and report for clients.

EIPP continues to collect data on post partum visits and identifying barriers to having participants seen by their health care provider during the 4 to 6 weeks post-partum time period.

The Massachusetts New Parent Initiative (MNPI), an emotion-based social marketing campaign to enhance how providers engage and provide family planning services to new mothers, continued. Materials developed have included digital stories and innovative emotion-based messages to provide more effective family planning counseling to postpartum women. Two of the nine digital stories produced directly address family planning and there is information on the web for providers on how they can address this topic with their clients. [www.mass.gov/dph/newparents]. All EIPP providers are scheduled to be trained in June 2010 on the use of these materials and this will include messages developed with a focus on increasing the use of family planning.

### **c. Plan for the Coming Year**

See NPM#8 and SPM#1 for most activities related to improving pregnancy spacing.

Continue ongoing activities.

The Title V agency had been interested in calculating IPI and monitoring this indicator in order to get a Medicaid waiver to pay for postpartum family planning services. In the meantime sweeping health reform legislation was passed in MA; all women should be covered now. We will continue to monitor this indicator to make sure the goal of universal coverage is realized in Massachusetts for services that promote planned and appropriately spaced pregnancies for all women.

The Massachusetts New Parents Initiative (MNPI) has completed a toolkit for providers of new parents on the use of developed emotion based messages. All EIPP providers are being trained in June 2010 on how to more effectively incorporate family planning messages during their home visits. The messages developed through this project were informed by the results of focus groups of new parents. These messages and strategies for developing them have been incorporated in a provider toolkit which will be used by providers in multiple settings (clinics, home-visiting services, birth hospitals) to engage and effectively counsel new mothers in implementing a family planning method that will work to increase their interpregnancy interval. Orientation and training in use of the toolkit is underway, and the toolkits are being distributed and are available on the web at [www.mass.gov/dph/newparents](http://www.mass.gov/dph/newparents). A rigorous evaluation has been developed and will be completed by August 2010.

A new PELL epidemiologist was hired and IPI analyses will continue to be expanded to include factors that contribute to short IPI including maternal age, race, and education. PRAMS data on pregnancy intention using 2007-2008 will be analyzed and a factsheet will be produced and disseminated in collaboration with the Family Planning program.

EIPP programs continues to collect program data on post partum visits and identifying barriers to

having participants seen by their health care provider during the 4 to 6 weeks post-partum time period. The most recent data found that among the EIPP participants who attended a post partum visit with a health care provider, 47% were seen between 28-47 days post partum and 75% were seen by 90 days post partum. For those who did not meet their health care providers between 4 and 6 weeks, the following barriers were reported;

- appointment not available between 4-6 weeks post partum (23%)
- transportation barriers (14%)
- participant declined visit (13%)
- seen before 4 weeks and informed that an appointment between 4-6 weeks was not necessary (6%)
- transportation barriers; child care barriers; and mother unable to negotiate time off from work(6% each).

**State Performance Measure 4:** *Percent of children and youth (ages 3 - 18) enrolled in Medicaid who receive preventive dental services annually.*

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective		41	45	50	55
Annual Indicator	40.8	42.5	45.9	50.6	53.5
Numerator	151089	165682	180416	201655	227116
Denominator	369993	389674	392765	398531	424348
Data Source				Mass. Medicaid agency, HCFA Form 416	Mass. Medicaid agency, HCFA Form 416
Is the Data Provisional or Final?				Final	Final
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	60	60	65	65	

**Notes - 2009**

See the Detail Sheet for this measure for definitions of the numerator and denominator and a discussion of data limitations. The data correspond to those reported by DMA to HCFA on Form HCFA 416, Annual EPSDT Participation Report; the most recent data are from the period October 1, 2008 - September 30, 2009.

The rate continues to improve each year, although at a slower rate in 2009. This state measure is being retired beginning next year.

**Notes - 2008**

See the Detail Sheet for this measure for definitions of the numerator and denominator and a discussion of data limitations. The data correspond to those reported by DMA to HCFA on Form HCFA 416, Annual EPSDT Participation Report; the most recent data are from the period October 1, 2007 - September 30, 2008.

The rate continues to improve each year and we have adjusted some outyear Performance Objectives accordingly.

**Notes - 2007**

See the Detail Sheet for this measure for definitions of the numerator and denominator and a discussion of data limitations. The data correspond to those reported by DMA to HCFA on Form HCFA 416, Annual EPSDT Participation Report; the most recent data are from the period October 1, 2006 - September 30, 2007.

#### **a. Last Year's Accomplishments**

See also NPM # 9 and Priority Need #8

EPSDT screening and oral health services rates increased since FY07, following a judgment in *Health Care For All, Inc. et al v. Governor Mitt Romney, et al* and rate increase. The dental services utilization rates among the approximately 510,000 MassHealth eligible children are low, although children receiving dental examinations and preventive services continue to increase to the following FY09 percentages:

- Dental Examination: 55% (up from 49.4% in FY08)
- Prophylaxis: 48% (44.8% in FY08)
- Topical fluoride: 45% (42.5% in FY08)
- Dental Sealant: 32% (6-9 age group) and 36% (10-14 age group)

In addition to increasing rates, MA contracted with a third-party administrator (TPA) to coordinate Medicaid dental services and payments to providers. A cap of one patient was placed on the number of dental patients that a dentist has to accept to become a MassHealth provider. In FY09, there were 1,840 MassHealth providers, up from 1,360 in FY08.

ESHS 2008-2009 data indicate that the typical district participating in oral health screening activities screened students at an annual (median) rate of 59.5 per 1000 students for those districts with any screening, with a third of the screenings performed by school nurses. Of the ESHS districts conducting oral health activities, 42% had dental sealant services (reaching 12,287, considerably higher than the 7,285 students reached the previous year); 57% had fluoride rinse programs (reaching 26,146 students); and 67% made referrals to dental providers for 9,155 students. However, only about 2,500 of those referrals were known by the schools to have been completed.

Through OOH coordination of service delivery, more than 2,785 patient visits occurred in FY09, with more than 10,000 dental sealants being placed.

OOH began the direct delivery of dental screenings, sealants and topical fluoride using portable dental equipment in 6 schools with SBHCs in western MA though a pilot, named MDPH-SEAL. In FY09, SEAL expanded to 27 schools. The OOH continues to implement Neighborhood Smiles, a dental screening and referral program for children 0-3 years of age enrolled in Early Intervention. In FY09, the program was offered to about 300 children and their families.

In addition to participation in MDPH-SEAL, SBHC sites performed a number of oral health activities. Many offered dental screenings. Students identified with dental problems, such as cavities, were referred to an SBHC sponsoring agency, a community agency or university that offered low-cost dental care to SBHC students. Some SBHCs offered dental services through collaboration with mobile dental programs; others had on-site dental clinics that included cleanings, exams and sealants. Some sites conducted classroom-based education on oral health.

**Table 4b, State Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. The Office of Oral Health coordinates and provides leadership for oral health planning and activities.	X		X	X

2. Training and technical assistance are provided to school nurses and school-based health center (SBHC) clinicians re: screening for oral health needs.				X
3. WIC distributes dental health education materials as well as child and adult toothbrushes.				X
4. SBHCs, Essential School Health Services sites (ESHS), and other pediatric primary care sites screen for oral health needs, and refer for care. Some SBHCs and ESHS sites offer preventive oral health care on site.	X	X		
5. CHCs screen and refer for care and many provide on site care. Women of Reproductive Age and Adolescents contracts require CHCs to provide dental services on site or through contracted dental providers. DPH annual site visits review compliance.	X	X		
6. EIPP, FOR Families and Care Coordination for CSHCN assess and refer children for oral health needs.		X		
7. Work closely with Medicaid, providers, and other interest groups on issues of facilitating access, oral health services options, rates, and promoting preventive care.	X		X	X
8. Some Early Intervention sites offer oral screening, anticipatory guidance and referrals for needed dental care.	X	X		
9. See also activities for NPM #9 and Priority Need #8.	X		X	X
10.				

#### **b. Current Activities**

See also ongoing activities Summary Sheet above.

The Office of Oral Health (OOH) collaborates with dental and health professionals interested in developing school-based oral health programs and increasing the number of MassHealth children served in this venue. In January 2009, the Massachusetts legislature passed a bill creating a public health dental hygienist category to work without the supervision of dentist. This should assist in increasing the number of children provided preventive dental services in public health settings, such as schools. This bill will allow dental hygienists to bill MassHealth for their services directly, increasing the number of low income children receiving sealants and fluoride. The Department continues to implement and expand MDPH-SEAL, a school-based sealant and fluoride program, in more than 51 schools (up from 25 the previous year) in 5 different communities.

The Massachusetts Oral Health Action Plan for CSHCN has been revised and with a 4-year MCHB grant the activities are being implemented. In January 2009, the OOH released the BLOCK Oral Disease Toolkit and online training for medical providers. The training also includes information on applying fluoride varnish during well-child visits and may be accessed by medical providers on the OOH website.

The state's weekly fluoride mouthrinse program is serving about 52,000 children in living in non-fluoridated communities.

#### **c. Plan for the Coming Year**

See also NPM #9 and Priority Need #8. Current activities will continue.

The OOH will expand its efforts to increase the number of MassHealth child members and other school-aged children receiving dental sealants through expansion of the MDPH SEAL Program to two new communities.



The OOH will continue to provide fluoride mouthrinse to elementary school students in non-fluoridating communities.

Oral health trainings of medical providers including the application of fluoride varnish will continue in FY11.

**State Performance Measure 6:** *The extent to which the Commonwealth is making progress in developing a system to promote healthy weight, including nutrition and physical activity, as measured on a unique scale from 0 - 87.*

#### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective		24	1	64	73
Annual Indicator		24	56	64	73
Numerator		24	56	64	73
Denominator	87	87	87	87	87
Data Source				Program data	Program data
Is the Data Provisional or Final?				Final	Final
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	80	84	85	85	

#### Notes - 2009

This measure is scored from a Checklist that includes five components (some with several subcomponents), each scored on a separate scale; the maximum total score is 87. See FY2007 note and Notes to Form 16 (Detail Sheet) for details on components and scoring. See the Detail Sheet (in Form 16) for this measure for definitions and discussions of its significance and development.

The Checklist itself, with the FY09 scoring by component shown, is provided as an Attachment to the "Last Year's Accomplishments" sub-section of the narrative for this Measure.

This state performance measure is being retired beginning next year, although a new one related to promoting healthy weight will be added.

#### Notes - 2008

This measure is scored from a Checklist that includes five components (some with several subcomponents), each scored on a separate scale; the maximum total score is 87. See previous year's note and Notes to Form 16 (Detail Sheet) for details on components and scoring. See the Detail Sheet (in Form 16) for this measure for definitions and discussions of its significance and development.

#### Notes - 2007

This measure is scored from a Checklist that includes five components (some with several subcomponents), each scored on a separate scale; the maximum total score is 87. The components are: 1) establishment of active internal task force to assure implementation of healthy weight systems as developed; 2) establishment of consistent nutrition and physical activity messages across core DPH programs and others as appropriate; 3) promotion of these consistent messages across all core DPH programs and others, including active engagement with external partners; 4) improved policies and systems for nutrition and healthy weight in schools; and 5) capacity to measure weight status and change in key programs: Essential School Health schools, school-based health centers, and WIC programs (through PNSS). See Notes to Form 16 (Detail Sheet) for details on components and scoring. See the Detail Sheet (in Form 16)

for this measure for definitions and discussions of its significance and development.

How checklist is scored: A lead person with knowledge of the topic being measured works with a team to score the checklist and to propose target scores for future years. Team members may be responsible for different elements on the checklist, depending on the nature of the element and their expertise; some elements may be jointly scored. Checklists include multiple types of elements. Some come from survey results or other instruments, which directly translate into rating scheme on the checklist. Checklist elements have been designed to be as objective as possible, e.g., specifying a number of sites in which a program should be implemented to attain a given score. For example, the person with knowledge of the number of sites implementing the program scores that element and communicates the score to the lead person. When an element has some degree of subjectivity to it (e.g. if a question is raised about what constitutes program implementation), the team members negotiate a joint score. The proposed current and projected scores are reviewed and approved by the Title V director before being finalized.

The details on the specifications and scoring system for this measure were modified after it was proposed in our FY06 Application; it has not been modified this year.

Due to a glitch in the previous version of the EHB/TVIS software, we were not able to directly enter our Annual Performance Objectives for future years. This bug has been corrected and Annual Performance Measures are now shown for Years 2008 forward. However, we could not correct the FY07 Objective – which was 53. Our actual FY07 annual score was 56, above this target.

#### **a. Last Year's Accomplishments**

Mass in Motion (MiM), obesity prevention, wellness initiative was launched in January 2009. MiM is designed to promote wellness and reduce risk factors for chronic disease, with a specific focus on overweight and obesity prevention. Successful outcomes of the campaign include the release of the Health of Massachusetts: Impact of Overweight and Obesity; body mass index (BMI) regulations for schools; calorie posting regulations for chain restaurants; an Executive Order on food purchasing requirements for state agencies; the expansion of the state-sponsored Workplace Wellness program; a Municipal Leadership and Wellness (MLW) grant program in 10 municipalities; and the launch of a state-wide communications campaign, including a state-sponsored web site [www.mass.gov/massinmotion](http://www.mass.gov/massinmotion), to promote healthy eating and active living. MLW grants promote PSE change strategies to support healthy eating and active living. This first-of-its-kind public-private partnership among the MDPH, five of the state's leading health foundations and a health insurance company announced the availability of approximately \$580,000 in grants to support local activities.

The Nutrition Division ensured consistent messages for young children and pregnant women, now emphasized by the availability of lowfat dairy, fruits and vegetables and whole grains as part of the new WIC food package.

WIC added to its inventory of emotion-based nutrition educational materials by developing, translating and printing advertising style messages to encourage breastfeeding, water consumption, iron-rich foods and positive role modeling.

DPH continued to fund 26 organizations across the state to implement wellness activities in the community, school and workplace. NAPO coordinated quarterly training focused on policy/environmental change strategies and evaluation.

The worksite wellness program was expanded to an additional 12 employers for a total of 23 employers having a reach of 22,000 employees. Most employers are addressing the issue of overweight/obesity as well as increasing physical activity and healthy eating.

In May 2009, a regulation requiring calorie posting at point of purchase for food establishments

having 20 or more sites in the state was passed. This regulation becomes effective in November 2010.

The Governor signed Executive Order 509 for Healthy Food Procurement which requires all state agencies with food contracts to meet nutritional standards developed by DPH. It became effective July 1, 2009.

ESHS surveyed its 80 districts on their nutritional environment: 49% had nutrition/physical activity support groups with 63 meetings attended by 336 students and 181 staff in an average month; school nurses averaged 252 presentations monthly on fitness/nutrition/wellness, with 5,033 students attending per month; 76 districts reported 109,674 BMI screenings for at least 1 of 4 grades and 60 reported for all 4 grades. Overweight/obesity ranged from a low of 28.6% for 10th grade females to a high of 39.7% for 4th grade males.

2008 Pregnancy Nutrition Surveillance data (released in 2009) indicated that the % of women overweight pre-pregnancy rose to 41.2% from 39.9% in 2007, continuing the secular trend of a gradual increase since 1990 when it was 25%. The % of WIC enrollees with greater than ideal weight gain during pregnancy remained essentially unchanged at 45.9% from the 2007 rate of 45.6%; this overall trend has also been gradually increasing since 1990 when it was 35.7%.

SBHCs were involved in a number of activities to promote healthy weight, including nutrition and physical activity, and 96% reported BMI to DPH through the SBHC data system. SBHCs provided nutrition assessment and risk reduction counseling; nutrition education via health education classes and health fair displays; and assessment of physical activity, specifically sports involvement and TV/internet time. Several SBHCs had a licensed nutritionist on site, and others provided sports physicals to students. Several conducted CQI activities for healthy weight.

***An attachment is included in this section.***

**Table 4b, State Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Through work groups for pregnant women, young children, school age/youth, and adults, establish consistent nutrition and physical activity messages across programs and monitor their use and effectiveness.				X
2. Assure that all relevant BFHN and BCHAP programs document, monitor and evaluate the use of standard nutrition and physical activity messages.				X
3. Focusing on each population group, develop and update guidelines and standards for BFHN and BCHAP direct service programs regarding nutrition screening, education and referral.		X		X
4. Improve systems in schools with multiple initiatives through Mini-grants, Healthy Choices (HC), School Based Health Centers (SBHC), Essential School Health Services (ESHS), School Health Unit (SHU), and Coordinated School Health Program (CSHP).				X
5. Systematically engage with school personnel and affiliated groups in improving school policies and systems for nutrition and healthy weight, provide training and guidelines, and annually survey the schools to document ongoing improvement.				X
6. Implement and continuously improve systematic collection and reporting of BMI in school age children, with a BMI workgroup				X

including the CSHP, SHU, ESHS, and the Nutrition and Physical Activity Unit (including its program, HC).				
7. Local WIC programs identify and implement strategies to promote healthy weight gains for pregnant women, including to improve local program baselines set in FY08 for monitoring weight gain among pregnant women.		X		X
8. WIC and EIPP assess participating pregnant and postpartum women for nutrition, BMI, and physical activity and provide appropriate counseling and referrals.		X		X
9. Promote consistent messages on healthy eating, physical activity and healthy weights in BFHN, BCHAP, and other DPH programs.				X
10. The Partnership for Healthy Weight was reconfigured and is now called the Wellness Promotion Advisory Board.				X

#### **b. Current Activities**

See summary chart and NPM #14.

The Nutrition Division will continue to ensure the use of consistent messages for women and young children and WIC will continue to facilitate the use of emotion-based nutrition education materials in all local programs and with community nutrition partners statewide, promoting the use of the new WIC foods as a means to achieve a healthy weight.

The Mass in Motion website [www.mass.gov/massinmotion](http://www.mass.gov/massinmotion), has a new parent page and is now available in Spanish and Portuguese languages to increase access to populations in these two communities whose first language is not English.

Regulations were passed through EEC requiring day care providers to ensure that children in day care more than 4 hours have at least 60 minutes of physical activity.

In FY10 NPAO received stimulus funds to support the calorie posting initiative as well as implementation of the 60 minute regulation for day care providers. NPAO is working with EEC to support implementation of the regulations through implementation of a train the trainer program using NAP-SACC and I am Moving I am Learning curriculum.

An RFQ was released to identify media contractor to implement an educational program for consumers on the upcoming calorie posting regulations.

Educational tools and an online training program is under development to support state agencies to meet the Executive Order 509 for Healthy Food Procurement.

The Municipal Wellness Leadership grant was expanded to one additional municipality.

#### **c. Plan for the Coming Year**

See summary chart and NPM #14.

The Nutrition Division will continue to ensure the use of consistent messages for women and young children and WIC will continue to facilitate the use of emotion-based nutrition education materials in all local programs and with community nutrition partners statewide, promoting the use of the new WIC foods as a means to achieve a healthy weight.

The Mass in Motion website [www.mass.gov/massinmotion](http://www.mass.gov/massinmotion), has a new parent page and is now available in Spanish and Portuguese languages to increase access to populations in these two communities whose first language is not English.

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An RFQ was released to identify media contractor to implement an educational program for consumers on the upcoming calorie posting regulations.

Educational tools and an online training program is under development to support state agencies to meet the Executive Order 509 for Healthy Food Procurement.

The Municipal Wellness Leadership grant was expanded to one additional municipality.

**State Performance Measure 8:** *The percent of licensed child care centers serving children age birth to five who have on-site health consultation*

Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective		20	22.5	25	30
Annual Indicator	20	20	22.5	25	25
Numerator					
Denominator					
Data Source				State agency survey estimates	tate agency survey estimates
Is the Data Provisional or Final?				Provisional	Provisional
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	40	50	50	50	

**Notes - 2009**

The annual indicator percent is an estimate based on previous years' data. Much of our work in capturing this data was been put on hold as EEC has still not developed an electronic record system for all licensing information, which should yield a clearer picture of ECE program CCHC utilization. Based on program staff experience and anecdotal information, we believe the actual % continues to improve slightly.

This state performance measure is being retired beginning next year.

**Notes - 2008**

The annual indicator percent is an estimate based on the previous years' numbers. Much of our work in capturing this data has been put on hold as EEC is still in the process of developing an electronic record system for all licensing information, which should yield a clearer picture of ECE program CCHC utilization. Based on program staff experience and anecdotal information, we believe the actual % continues to improve slightly.

**Notes - 2007**

The annual indicator percent is an estimate based on the previous year's numbers. Much of our work in capturing this data has been put on hold as EEC is currently in the process of developing an electronic record system for all licensing information, which should yield a clearer picture of ECE program CCHC utilization.

#### **a. Last Year's Accomplishments**

Massachusetts Early Childhood Comprehensive Systems (MECCS) continues to contact centers to update the existing CCHC database. Out of 3000 centers contacted, MECCS has identified health consultants for close to 2700 programs. EEC is still moving forward on its electronic database, though progress has been slow due to state budget cuts and difficulty in finding an appropriate IT consulting group.

MECCS provided TA on the roles of CCHCs to EEC, which has updated its child care licensing regulations and promulgated them at the beginning of the year. MECCS has been most involved in supporting the new regulations on medication administration training. MECCS has supported EEC by providing content for a web-based, narrated powerpoint presentation on the Five Rights of Medication Administration.

MECCS' Health and Safety in Child Care webpage was developed and is now online at the Department of Public Health site. The website proved to be a highly valuable resource for collecting and disseminating up to date information and resources for health consultants and child care providers during the height of the H1N1 outbreak. MECCS continues to post material and expand its topic areas and is currently working with the IT department to continue to refine the site and devise a method to measure site hits and visits.

**Table 4b, State Performance Measures Summary Sheet**

<b>Activities</b>	<b>Pyramid Level of Service</b>			
	<b>DHC</b>	<b>ES</b>	<b>PBS</b>	<b>IB</b>
1. Staff and continue the renewed HRSA-funded Massachusetts Early Childhood Comprehensive Systems (MECCS) projects, including the following:				X
2. With the Early Intervention Regional Consultation programs and the MA chapter of the AAP support basic and complex medication administration training for child care health consultants (CCHC).				X
3. Provide technical assistance to the Department of Early Care and Education (EEC) as it undertakes reform of the child care licensing regulations and begins to plan a tiered Quality Rating Scale.				X
4. Contact child care centers and CCHCs to update the MECCS database, originally created from a 2007 survey, of CCHCs' activities and barriers and supports to their work, and clean and maintain the CCHC database.				X
5. Complete the final report from the survey and build awareness of CCHCs by disseminating it.				X
6. Maintain H&S in CC web page to share key resources for health and safety in child care with CCHCs and other Early Care and Education staff.				X
7. Convene leaders in various disciplines working with young children and their families, build on existing collaborations, develop system-wide goals and outcomes, and implement effective strategies utilizing these strong partnerships.				X

8. . In collaboration with Boston University and the Massachusetts Society of Eye Physicians and Surgeons, promote preschool vision screening protocols, provide training on them, and monitor their implementation at kindergarten entry.				X
9.				
10.				

#### **b. Current Activities**

The CCHC report is being revised to make it more engaging to the general public and the field, and to expand a brief history of health and safety in child care in the state and the role of MDPH. Information from the draft report has been used by EEC in development of its recently promulgated regulations. Discussions are on-going on how to disseminate the report, possible audiences and how best to utilize the information contained in the report.

MECCS partnered with MCAAP's Child Care Liaison on a successful proposal for a national AAP's Medication Administration Train the Trainer opportunity. MECCS also used discretionary funding to support the EI Regional Consultation Program in drafting a curriculum and materials around complex medication administration training for child care providers and health consultants.

In December, the Nutrition/Physical Activity unit at DPH, with the help of the MECCS Assistant Coordinator, successfully applied for ARRA funding to support EEC in implementing their new child care regulation requiring 60 minutes of physical activity per day. This work is supported by an interagency work group that includes representatives from: MECCS, DPH, EEC, ESE BPHC, Head Start T/TA, HSSCO and Harvard. Child care health consultants are one of the primary target audiences for North Carolina's Nutrition and Physical Activity and Self-Assessment for Child Care (NAPSACC) training, which will be adapted and implemented by this interagency group next year.

#### **c. Plan for the Coming Year**

This measure is being retired.

MECCS plans to further develop, clean, and maintain a database of CCHCs, which will be used to disseminate health and safety information, as well as an urgent health alerts and updates.

MECCS will support EEC in developing the infrastructure and training to support any final regulatory changes, as well as any criteria about CCHCs that might be adopted in EEC's planned Quality Rating System. MECCS will utilize current and future CCHC data and databases to help determine any needed changes to policy or regulations regarding CCHCs and their roles.

Implement and evaluate RCP complex medication training, AAP train the trainer events and NAPSACC training for child care health consultants.

Finalize and disseminate policy development guidelines for HIV in School and ECE settings.

**State Performance Measure 9:** *The extent to which perinatal health disparities are addressed at the state and local levels, collaboratively with stakeholders and community partners, as measured by a unique scale from 0 - 33.*

#### **Tracking Performance Measures**

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
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<b>Data</b>					
Annual Performance Objective		8	1	14	18
Annual Indicator		8	11	14	24
Numerator		8	11	14	24
Denominator	33	33	33	33	33
Data Source				Program data	Program data
Is the Data Provisional or Final?				Final	Final
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	20	24	27	31	

#### **Notes - 2009**

This measure is scored from a Checklist that includes a sequence of six components (some with subcomponents or steps), each scored on a separate scale; the maximum total score is 33. See Notes for 2007 and the notes to Form 16 (Detail Sheet) for details on components and scoring. See the Detail Sheet (in Form 16) for this measure for definitions and discussions of its significance and development.

The Checklist itself, with the FY09 scoring by component shown, is provided as an Attachment to the "Last Year's Accomplishments" sub-section of the narrative for this Measure.

This state performance measure is being retired beginning next year.

#### **Notes - 2008**

This measure is scored from a Checklist that includes a sequence of six components (some with subcomponents or steps), each scored on a separate scale; the maximum total score is 33. See Notes for 2007 and the notes to Form 16 (Detail Sheet) for details on components and scoring. See the Detail Sheet (in Form 16) for this measure for definitions and discussions of its significance and development.

The Checklist and its scoring, along with outyear Performance Objectives was modified, based on greater than expected progress in FY09. (See checklist attachment under Part IV. B. (State Priorities).)

#### **Notes - 2007**

This measure is scored from a Checklist that includes a sequence of six components (some with subcomponents or steps), each scored on a separate scale; the maximum total score is 33. The components are: 1) development & implementation of a state plan & other support for programs that address perinatal disparities [Sub-components include: 1a) establishment of statewide advisory group to develop a state plan; 1b) revision & promulgation of state perinatal regulations; 1c) development of protocols to address racism in all state-supported perinatal programs; & 1d) development of statewide strategic plan with community input;]; 2) establishment of functioning community-based advisory groups in at least 5 communities with high perinatal disparities; 3) increased use of state & local data to develop community-based strategic plans; 4) MDPH engagement with communities with high perinatal disparities in development of their strategic plans; 5) completion & approval of strategic plans to address perinatal disparities in high disparity communities; and 6) the implementation of these plans. See Notes to Form 16 (Detail Sheet) for details on components and scoring.

How checklist is scored: A lead person with knowledge of the topic being measured works with a team to score the checklist and to propose target scores for future years. Team members may be responsible for different elements on the checklist, depending on the nature of the element and their expertise; some elements may be jointly scored. Checklists include multiple types of elements. Some come from survey results or other instruments, which directly translate into rating scheme on the checklist. Checklist elements have been designed to be as objective as possible,



e.g., specifying a number of sites in which a program should be implemented to attain a given score. For example, the person with knowledge of the number of sites implementing the program scores that element and communicates the score to the lead person. When an element has some degree of subjectivity to it (e.g. if a question is raised about what constitutes program implementation), the team members negotiate a joint score. The proposed current and projected scores are reviewed and approved by the Title V director before being finalized.

Details on the specifications and scoring system for this measure were modified after it was proposed in our FY06 Application. Further modifications will be made to this measure during FY09, based on our first several years experience.

Due to a glitch in the previous version of the EHB/TVIS software, we were not able to directly enter our Annual Performance Objectives for future years. This bug has been corrected and Annual Performance Measures are now shown except for the FY07 Objective – which was 11 (not 1).

#### **a. Last Year's Accomplishments**

See also NPMs #17 and #18, as well as Priorities #1, #4 and #10 for information on additional activities.

See the Attachment to this section for a copy of the complete checklist being used and details on scoring of this measure for FY08 by component.

In collaboration with 19 statewide perinatal advocacy and support agencies, MDPH implemented the 20th annual "Partners in Perinatal Health Conference," which provided up-to-date training and multidisciplinary networking opportunities for over 700 perinatal care providers of all levels. Workshops focused on paradigms of healthcare, the history of birth, using data to inform community action, and a variety of other topics related to perinatal health. In honor of the conference's 20th anniversary, the conference was extended to two days which allowed for a wider range of workshops.

The March of Dimes Massachusetts Chapter Annual Prematurity Summit, held in collaboration with the MDPH and other state partners continued to maintain a focus on the impact of racial and ethnic disparities on birth outcomes, creating a forum for multidisciplinary discussions for addressing racial and ethnic barriers to access care.

The Massachusetts Community Health Worker (CHW) Network Project continued to use CHWs to reduce health disparities by seeking opportunities for promoting MCH services in underserved populations, through culturally and linguistically competent outreach and collaboration building with rural health care organizations. The Massachusetts Community Health Worker Network continued to hold trainings designed specifically to teach outreach educators strategies for increasing prenatal care utilization in culturally and geographically diverse target populations. The Massachusetts Community Health Worker Initiative is collaborating with relevant MDPH staff to plan a sustainable CHW program in an era of limited funding.

Thought the Massachusetts Maternal Mortality and Morbidity Committee, an expert group of clinicians continues to review all pregnancy associated and pregnancy related maternal deaths in Massachusetts to establish recommendations for improving health systems and clinical care for women giving birth.

***An attachment is included in this section.***

**Table 4b, State Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB

1. With DPH Health Care Quality (hospital licensing), survey and educate MA Birth Hospitals to determine level of care and compliance with recent perinatal hospital regulations, and provide health and regulatory information to hospitals.				X
2. Annually analyze birth data at both the state and community level--including Perinatal Periods of Risk (PPOR), Population Attributable Risk (PAR) and risk statistics--and share results with state and community partners.				X
3. Continue to work with stakeholders and community partners to assess strengths, skills and capacity to collect and analyze data pertinent to disparities.				X
4. In collaboration with 18 statewide perinatal advocacy and support agencies, support annual "Partners in Perinatal Health Conference," reaching audiences of over 500 providers and including workshops focused on perinatal racial disparities.				X
5. The Perinatal Disparities Project actively collaborates with Fetal-Infant Mortality Review (FIMR) initiatives in Boston, Worcester and Springfield.				X
6. The Maternal Mortality Review Committee, convened by the MDPH, reviews all maternal deaths in Massachusetts and develops recommendations for clinical and systems improvement to ensure safe motherhood.				X
7. The Perinatal Advisory Committee, convened by Health Care Quality and BFHN, meets at least twice annually to review and advise DPH on perinatal services in birth hospitals.				X
8. The Perinatal Disparities Project developed a tool kit to train communities in using state and local qualitative and quantitative data related to infant and maternal outcomes to identify priorities and inform policy and strategic planning.				X
9. Participate with Boston Public Health Commission and 7 other states in AMCHP/CityMatch Learning collaborative to promote healthy weight in women of reproductive age in Boston, with emphasis on African-American & Hispanic communities.		X		X
10.				

#### **b. Current Activities**

Based on population-attributable risk (PAR) analysis of Springfield data, DPH collaborated with local partners, including the FIMR, to conduct focus groups with black and Hispanic women on the perception of care they received while pregnant, giving birth or in the postpartum period, and the impact of racism on it. BFHN staff are working closely with the community partners to develop a comprehensive strategic plan to address perinatal disparities. They plan to use this document for preparing an application to the Healthy Start Initiative and to other potential federal and local funders.

In FY10, the MDPH Medical Director convened a department-wide group of staff, including BFHN, to establish a process for reviewing infant deaths statewide. The purpose of the Review of Infant Mortality (RIM) is to decrease the incidence of preventable infant deaths in Massachusetts. Initially, RIM will include infants under one year who death was caused by prematurity (< 37 weeks) or a known medical cause. Fetal deaths and infant deaths due to injury, violence and sudden unexplained infant death (SUID) will be excluded. The RIM will develop and disseminate recommendations for preventing infant deaths, and will work with local communities to implement and evaluate recommended strategies.

All EIPPs are required to sign and implement the CLAS requirements as a condition of their contract; a annual review of the requirements is now part of their annual performance review and

contract renewal.

### c. Plan for the Coming Year

See also NPMs #17 and #18, as well as Priorities #1, #4 and #10 for information on additional activities.

This measure is being retired next year, although the activities will continue.

The process of starting the Review of Infant Mortality (RIM) will continue. A budget for implementing the RIM has been developed (around \$235,000 for the first year, and \$265,000 on an annual basis after the process has been established and is fully staffed). This budget will be presented to Bureau Directors with the hope that funding can be identified from several bureaus, and possibly from other state agencies to fund this important initiative.

The Perinatal Advisory Committee will continue to meet to review perinatal clinical care provided in Massachusetts Birth Hospitals, and establish or review QI in each institution. The Perinatal Data Committee, having just received IRB/24AB approval, will develop a plan for reviewing data to establish a baseline for assessing whether all infants are born at the appropriate level hospital for their medical needs.

An epidemiologist has been hired and assigned to work with the data group. She has started analyzing the birth data, and, with guidance from the data committee will continue to provide data to the data committee to review. She will also create reports that present aggregate and de-identified data for the PAC to review.

In FY11, all EIPPs were required to sign and implement the CLAS requirements as a condition of their contract. A review, as part of their annual performance review, is underway to establish that each agency has complied with this new requirement.

**State Performance Measure 10:** *The percentage of adolescents reporting no current use (in past 30 days) of either alcohol or illicit drugs.*

#### Tracking Performance Measures

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Performance Objective		59	59	66	67
Annual Indicator	59	59	66	66	68
Numerator					
Denominator					
Data Source				MA bi-annual Youth Hlth Survey	MA bi-annual Youth Hlth Survey
Is the Data Provisional or Final?				Provisional	Final
	2010	2011	2012	2013	2014
Annual Performance Objective	67	68	68	69	

#### Notes - 2009

This measure is based on information from the Massachusetts Youth Health Survey (MYHS). Because the MYHS results are reported as population-based estimates based on weighted

survey data, only the percent will be reported, without numerators and denominators. The survey is conducted every other year and the 2009 survey results are reported. The percentage of adolescents reporting 'no current use' of alcohol or illicit drugs increased from 66% to 68% from 2007 to 2009.

#### **Notes - 2008**

This measure is based on information from the Massachusetts Youth Health Survey (MYHS). Because the MYHS results are reported as population-based estimates based on weighted survey data, only the percent will be reported, without numerators and denominators. Because the survey is conducted every other year, there are no new data for FY08 and the results of the 2007 survey are reported.

#### **Notes - 2007**

This measure is based on information from the Massachusetts Youth Health Survey (MYHS). Because the MYHS results are reported as population-based estimates based on weighted survey data, only the percent will be reported, without numerators and denominators. The survey is conducted every other year and the data have been refreshed from the FY07 survey.

Illicit drug use asked about includes those in the HP 2010 definition (with the exception that hashish is not asked), plus specific questions about "club drugs," over-the-counter drugs to get high; use without a prescription of steroids, Ritalin or Oxycontin; and drugs from prescriptions that weren't his/her own.

In 2004 on MYHS, over half (59%) of Massachusetts middle and high school students reported no alcohol or drug use. This became the baseline for this new state measure.

#### **a. Last Year's Accomplishments**

Prevention work has been extensive throughout the past five years. Community needs assessments have identified barriers to behavioral change and led to development of an effective community training model to increase expertise and promote a shared philosophy and approach. Social marketing campaigns conducted through radio spots, theatre and transit ads, 56 town hall meetings, distribution of materials in schools and the Talk about Addiction website (<http://www.talkaboutaddiction.org/>) have reached over three million people in the Commonwealth. The six regional Prevention Centers have provided training, technical assistance and on-line education and information.

The Investigation and Enforcement Division of the Massachusetts Alcoholic Beverages Control Commission (ABCC) has trained, advised and partnered with several community coalitions, including the Mothers Against Drunk Driving Youth in Action Program in conducting local compliance checks. Over the past several years, as the Commission has focused on communities with low rates of compliance, the failure rate has consistently declined. In 2009, the Investigation and Enforcement Division (IED) conducted Compliance Checks in 125 municipalities with a success rate of 95%, well above the national average of 84%, demonstrating that consistent compliance check enforcement results in a higher success rate.

The IED also conducted training sessions for 270 Police Departments and 1081 Officers, ensuring that compliance checks are conducted appropriately.

Evidence-based programs such as MassCALL have been expanded and uniform guidelines have been put in place for needs assessment, reporting, outcomes and evaluation of prevention programs. One example of evidence suggesting that ongoing activities are having an impact is that the percentage of youth reporting having had their first drink of alcohol has been reduced from 28 per cent in 2001 to 20 per cent in 2007.

With SAMHSA funds, 31 BSAS-funded community coalitions in MA provided science/evidence-based substance abuse Prevention Programs to prevent SA (especially underage drinking), marijuana, and other drug abuse among children, pre-K to youth up to 18 years of age. All 31 programs, implemented environmental approaches that seek to change the overall context within

which substance abuse occurs, focusing on substance availability, norms and regulations. Programs served 621,283 individuals.

Grants continue with 7 school districts to administer an evidence-based early intervention program for elementary and middle school students (CASASTART). The program identifies youth exhibiting risk factors (individual risk, family risk, school-based risk) for substance use problems and provides intensive, family-centered case management for up to two years.

BSAS provided technical assistance and support for 56 Underage Drinking Prevention Town Hall meetings, an underage drinking campaign on the various state transportation systems and continued an OxyContin prevention campaign including youth-oriented messages.

OYYAS continues to provide GAIN training, certification, and capacity building support to clinicians statewide and has joined with the other Northeast states to form the Northeast Regional Collaborative (NERC) that coordinates trainings available to any provider in the participating states.

OYYAS hosted a 2-day training on SA treatment for adolescent girls and a 1-day training on adolescent males in SA treatment.

BSAS partnered with Children's Hospital to provide training on screening (CRAFT) and referral to treatment and community based services.

OYYAS and a contracted provider IHR are developing a psycho educational and skill building curriculum to address issues of wellness and recovery.

BSAS has continued to fund adolescent residential treatment programs that are gender-specific, trauma-informed, and able to address co-occurring mental health needs. The programs provide SA treatment as well as adolescents' other health needs, such as medical and dental visits. It also funds two Youth Detoxification and Stabilization units and three Recovery High Schools.

A workgroup of the Children's Mental Health Task Force that includes DPH focused on early ID of substance use, integration of ongoing screening and linkage of evidence-based treatment programs with primary care. It endorsed CRAFT, trained trainers, and is developing a tool kit for pediatric primary care settings.

**Table 4b, State Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. BFHN and BCHAP collaborate on a variety of youth programs and initiatives conducted by BSAS to prevent alcohol and illicit drug use and support community-based programs that target known risk and protective factors.				X
2. Support implementation of the state's Substance Abuse Strategic Plan including multiple policy and programmatic initiatives and an epidemiological work group conducting state and local needs/resource assessment and gap analysis.				X
3. Provide screening, assessment and treatment services for male and female pre-adolescents and adolescents, and continue to increase access to services, including specialized services for high risk youth (e.g., out of school, special health needs).	X	X	X	
4. Increase systematic screening and intervention for substance use and other adolescent risk behaviors, through a DPH-wide Youth and Young Adult Work Group.			X	X

5. Through BSAS, train MCH vendor clinicians (including SBHC) and, through The School Health Institute, train school nurses and other school personnel re substance abuse including (as relevant) prevention, screening, assessment and treatment.				X
6. Enhance collaboration with the Office for Healthy Communities and Tobacco Control Program to develop, maintain, and support BSAS Prevention Programs and the Regional Centers for Healthy Communities (formerly the Prevention Centers).		X		X
7. Promote and support increased youth involvement in the planning and implementing of youth-focused health initiatives.				X
8. Support local community coalitions, including BSAS funding for science/evidence-based prevention programs to address environmental & other sources of risk and protective factors (community-specific or statewide).			X	X
9. Implement public information campaigns using paid media and social marketing techniques to promote culturally competent primary prevention among youth.				X
10. Conduct substance abuse surveillance through the combined Youth Health Survey and Youth Risk Behavior Survey and collect/analyze service and/or outcome data from BSAS, BFHN and BCHAP youth programs.				X

#### **b. Current Activities**

BSAS continued to support a Prevention System, including funding for 31 Prevention Programs with a particular focus on Underage Drinking; evidence-based strategies to prevent/reduce unintended fatal and non-fatal opioid overdoses; 3 Recovery High Schools; an early intervention program for elementary and middle school students (CASASTART) in 2 school districts; and a pilot program, the School Community Partnership, in 6 communities. The latter is a media program that involves teachers, youth and media experts to design a media campaign for each school.

TA was provided for 56 SAMHSA-sponsored Underage Drinking Prevention Town Hall Meetings. A Graphic Novella focused on overdose prevention was produced.

The curriculum, "Parent Time: Supporting Yourself and Your Child" was developed as a psycho-educational support group aid to address the needs of parents whose children were having problems with alcohol and other drug use. Statewide training is being conducted with participants from diverse community settings.

New state regulations outline developmentally appropriate services for 13- to 17-year-olds, including residential, outpatient, and stabilization services.

Continued monthly meetings coordinate and inform system collaboration with the Youth Interagency Work Group (YIWG), with representation from the Departments of Public Health, Mental Health, Child and Family Services Youth Services, and Elementary and Secondary Education; other youth-serving agencies; and Medicaid MCOs.

#### **c. Plan for the Coming Year**

BSAS will fully implement 31 Prevention Programs with a particular focus on Underage Drinking and, with a grant from the Substance Abuse Mental Health Services Administration, Center for Substance Abuse Prevention, 15 communities to implement evidence-based strategies focused on the prevention/reduction of unintended fatal and non-fatal opioid overdoses. The Regional Center for Healthy Community System, funded by BSAS will continue to provide training,

technical assistance and support to all BSAS funded Prevention programs.

BSAS will develop a Prescription Drug Abuse Prevention website focused on parents. An Alcohol Retailer's Toolkit will be finalized and distributed to alcohol retailers across the state. Parent guides focused on Talking to Your Pre-teen About Alcohol, Tobacco and Other Drugs will be translated into Spanish and Haitian Creole and distributed in communities as needed.

BSAS will continue to fund a pilot program, the School Community Partnership, in 6 communities across the Commonwealth. The pilot program is a media-based prevention program will continue to involve teachers, youth and media experts to design a media campaign for each school.

BSAS continues to support two youth stabilization/detoxification units that provide medical, psychological, and behavioral stabilization and referral to appropriate treatment and support serving 700 admissions annually.

Three Recovery High Schools continue to operate with an average of 40 students enrolled per school and over 90% attendance.

BSAS continues education and implementation efforts for capacity building with families by supporting "Parent Time: Supporting Yourself and Your Child" a psychoeducational/support group to address the needs of parents whose children were having problems with alcohol and other drug use. The second statewide Parent Time curriculum training was conducted on November 12, 2009. It was very well received with 40 participants from diverse community settings seeking training and support as they work with families across the state.

BSAS, working with a contracted vendor (the Institute for Health and Recovery) is in the final review process of completing a psycho educational and skill building curriculum to address issues of wellness and recovery. This curriculum is being developed in collaboration with expertise in areas of yoga, meditation, nutrition and a variety of wellness strategies aimed to support the recovery process.

BSAS will continue to sponsor trainings on evidence-based practices for providers working with adolescents in substance abuse treatment settings.

BSAS is working with family support groups Learn 2 Cope and MOAR to build capacity for families seeking support through the recovery process.

BSAS is working with a contracted vendor to conduct focus groups with youth and parents and develop a parents portal to better link families to prevention, intervention, treatment and support resources.

**State Performance Measure 11:** *The percentage of Massachusetts births that occur in a hospital that has an active Shaken Baby Syndrome Prevention Program.*

**Tracking Performance Measures**

[Secs 485 (2)(2)(B)(iii) and 486 (a)(2)(A)(iii)]

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Performance Objective				70	100
Annual Indicator			0.0	76	100
Numerator			0		
Denominator			78000		
Data Source				Program	Program

				data	data
Is the Data Provisional or Final?				Final	Final
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Annual Performance Objective	100	100	100	100	

#### **Notes - 2009**

All hospitals had active programs by the end of FY09. As a result, the measure will be retired beginning next year.

#### **Notes - 2008**

This is a new State Performance Measure which was added in FY09. The percentage rate is estimated from preliminary baseline information from program staff. Based on the rate of adoption of the program model, we now expect all hospitals to have active programs by the end of FY09. As a result, the measure may be modified or dropped during our 5-Year needs assessment process.

#### **Notes - 2007**

Not Applicable. This is a new State Performance Measure which was added in FY09.

#### **a. Last Year's Accomplishments**

The priority for FY09 was the implementation of the statutory requirement that all maternity hospitals have a plan in place for training new parents/caregivers on Shaken Baby Syndrome Prevention. We surpassed our performance objectives goals by training all maternity hospitals' staff by May 2009, due primarily to five important assets of the program:

1. The Initiative is a multidisciplinary collaboration among state agencies, nonprofits, and professionals. Participants include pediatricians, social workers, and managers of service agencies, including Early Intervention and The Parental Stress Line. DPH, the Children's Trust Fund, and the Dept of Children and Families are lead agencies. This statewide collaboration was able to create a Hospital Program Committee which worked extensively on the content and structure of the strength-based education program in the maternity hospitals.
2. DPH made the hospital education program top priority, and focused on providing all the maternity hospitals with everything they needed to begin educating parents of newborns.
3. DPH trained a team of 4 highly experienced Master's prepared nurse educators, and created a Power point presentation for their use. These nurse educators conducted trainings in the hospitals for their nursing staff on SBS and on talking to parents about prevention as required by the legislation.
4. DPH kept in close touch the hospitals and responded quickly to their needs. "All Babies Cry," the fact sheet which fulfills the requirement of printed information for parents, was made available free in 7 languages. For hospitals that wanted the option of computer based training (e.g. for new staff and reviews), DPH created such an option with a posttest and answers. A Train the Trainer curriculum allows hospitals to designate managers or clinical leaders to be trained as experts to educate their own staff. Anticipating that some nurses would find the topic difficult to discuss, DPH created a guide, "Tips on Talking with New Parents about Preventing Shaken Baby Syndrome," which has been widely used and appreciated.
5. Almost all the hospitals were extremely cooperative. Some had been doing SBS prevention education previously and most of those who had not were eager to begin doing so.

Over 163,000 copies of parent education materials developed for maternity hospitals by DPH were ordered, many by other organizations working with parents and families.

An Interagency Service Agreement was established with the Children's Trust Fund (CTF) to support community provider training. CTF directly trained people in multiple communities and



"trained-trainers" including those located in more than ¾ of DSS Area Offices and other sites.

Program staff began work with WIC, training their staff in infant soothing methods so they can educate their clients.

A subcommittee of the Advisory Group began work to develop a pilot surveillance strategy to clarify the number of cases of SBS identified annually in hospitals.

The program collaborated with developing local effort in Middlesex County and tracked ongoing efforts in Worcester and Berkshire Counties.

**Table 4b, State Performance Measures Summary Sheet**

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Convene and support the Shaken Baby Syndrome Prevention Advisory Group with representatives from key state agencies, parent and advocacy groups, to guide DPH in implementing the SBSP Initiative.				X
2. Administer state budget funding and maintain staff.				X
3. DPH collaborates with Children's Trust Fund (CTF) and DCF hospital-based education of new parents and works closely with a Hospital Program Subcommittee of the Advisory Board.		X		X
4. Issue Guidelines and assist hospitals to comply with legislation and Advisory Group recommendations, including one-on-one education by nurse educators and written materials to all new parents.				X
5. Financially support Massachusetts parental support hotline.		X		X
6. Provide hospitals with educational materials for parents in many languages, and with fact sheets for nurses on how to talk with parents about this topic.				X
7. Provide fact sheets and a Talking Points brochure for DCF social workers to assist them in implementing prevention education with their clients.				X
8. Support CTF training for community-based providers who serve infants and children and their caregivers and for "trained-trainers," who make a commitment to train other professionals in their agencies and communities, including at DSS Area Offices.				X
9.				
10.				

#### **b. Current Activities**

The SBS Coordinator began working with the WIC program, training their staff in infant soothing methods. WIC now has trained staff in each WIC office in the "Dr. Harvey Karp" soothing technique so they can help their clients manage infant crying in a healthy way.

The Coordinator worked with the Massachusetts PRAMS survey of new mothers. A question was added: "Have you ever heard or read about what can happen if a baby is shaken?" The analysis of data from this question will be available in the spring of 2011, and will help us understand what mothers of infants know, and what education should be provided in the future. It will also tell us how effective the maternity hospital education of parents of newborns has been.

The Massachusetts New Parents Initiative (MNPI) project, funded by HRSA/MCHB, produced emotion-based messaging through digital stories, provider toolkits and gift bags for new parents.

One of the messages focused on parent-infant bonding, and the parent gift bag includes a swaddling blanket with instructions on calming a baby. These are being used by home-visiting providers and community health-center based providers to trigger conversations about effective parent-infant bonding and soothing techniques. The campaign tagline is "Care, Share, Bond" -- care for yourself (including recognizing signs of stress); share with your friends, family and provider; and bond with your baby. All messages address reducing the risk of having a parent or caretaker shake a baby.

### **c. Plan for the Coming Year**

N/A. This measure has been retired for FY11.

Through the MNPI, additional provider toolkits will be distributed to home-visiting and community health center-based providers. Additionally, parent and provider digital stories will be available through the toolkits and on-line at [www.mass.gov/dph/newparents](http://www.mass.gov/dph/newparents). Finally, parent gift bags including swaddling blankets, soothing music, and tips on self-care and soothing infants will be distributed to new parents. Additional toolkits and new parent gift bags will be developed as funding allows.

## **E. Health Status Indicators**

### **Introduction**

The Health Status Indicators are all actively used by Massachusetts to track the health of the Commonwealth and to inform public health policy and practice. These indicators are part of a much larger set of indicators that are routinely reviewed and that help shape efforts to reduce health disparities and target programs appropriately. Analyses by race, ethnicity, age, and other characteristics -- at both the state and local levels -- are key components of our approach. A particular emphasis is working with communities at greatest risk to develop their own capacity to use data to create, implement, and monitor strategic plans. These indicators are also among the risk indicators that we use for tracking and early identification and for needs assessments for procuring community-based services. Massachusetts has been a leader in the development of programs based on data analysis. We have dedicated epidemiology resources and provide leadership using surveillance data, expanding data utilization and applying data to public health policy.

These HSIs are closely related to a number of NPMs, current SPMs, and current Priority Needs. There is additional information in those sections of the narrative:

For HSIs 1A, 1B, 2A, 2B

NPMs # 8, 15, 17, and 18

SPMs # 1, 2, 3, 9

Priority Need # 4

For HSIs 3A, 3B, 3C, 4A, 4B, 4C:

NPM # 10

SPMs # 8, 10

Priority Needs # 4 and 7

For HSIs 5A, 5B:

NPM # 8, 18

SPM # 1

Priority Need # 4

**Health Status Indicators 01A:** *The percent of live births weighing less than 2,500 grams.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	7.9	7.9	7.9	7.7	7.7
Numerator	6073	6150	6147	5955	
Denominator	76824	77670	77934	76969	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

**Notes - 2009**

2009 birth data are not available. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

**Notes - 2008**

Data for both the numerator and denominator are taken from MDPH Vital Records for calendar year 2008. This is the most recent year of data available. The denominator is all resident births for the year.

**Notes - 2007**

Data for both the numerator and denominator are taken from MDPH Vital Records for calendar year 2007.

The denominator is all resident births for the year.

**Narrative:**

Low birthweight infants (LBW, weighing less than 2,500 grams) are at increased risk of morbidity and mortality compared with infants of normal weight and are at higher risk of delayed development and poor school achievement later in life. MDPH uses this HSI to monitor the prevalence of LBW infants and to track progress toward achieving the Healthy People 2010 goal of 5% LBW births. The percentage of LBW infants in MA in 2008 (7.7%) was 33% higher than it was in 1990 (5.8%). Since 2005, LBW births have remained relatively stable. Data on the percentage of births that are LBW are published annually and widely disseminated in the Massachusetts Birth Book. The proportion of LBW births in each community is compared with other communities and the overall state LBW percentage. Each year with the release of the Birth Book, MDPH creates Community Packets which provide city/town specific data on the proportion of LBW infants among infants who died in the first year of life. Data on percent LBW and preterm infants born at each maternal and newborn care facility in MA are also used to monitor adherence to revised perinatal regulations, implemented in March 2006, to ensure that infants are born at birth hospitals licensed at a level of care that is appropriate for their anticipated level of need. This HSI also enables MDPH to monitor disparities in low birthweight by race/ethnicity and other socio-demographic factors (e.g., Medicaid vs. non-Medicaid). With the full implementation of PRAMS (starting with 2007 births) and ongoing linkages in the population-based Pregnancy to Early Life Longitudinal Data System we have steady access to information on perinatal risk factors associated with adverse birth outcomes including LBW. Findings from such analyses can be used to inform efforts to develop effective, targeted interventions for the prevention of prematurity and low birthweight, both at the state level and in concert with local areas at particular risk.

**Health Status Indicators 01B:** *The percent of live singleton births weighing less than 2,500 grams.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Indicator	5.6	5.8	5.7	5.5	5.5
Numerator	4126	4264	4258	4039	
Denominator	73258	74146	74498	73475	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

**Notes - 2009**

2009 birth data are not available. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

**Notes - 2008**

Data for both the numerator and denominator are taken from MDPH Vital Records for calendar year 2008. This is the most recent year of data available. The denominator is all resident singleton births for the year.

**Notes - 2007**

Data for both the numerator and denominator are taken from MDPH Vital Records for calendar year 2007. The denominator is all resident singleton births for the year.

**Narrative:**

The percentage of LBW infants among multiple births is much larger than among singletons. Much of the long-term increase in LBW in Massachusetts is due to an increase in multiple births.

In addition to monitoring the overall prevalence of LBW infants (as described under HSI#01A), MDPH stratifies LBW trends by plurality. This allows an estimation of what proportion of the increase in LBW births can be accounted for by the increase in multiple births. In 2008, 5.5% of singleton births were LBW, whereas 53.8% of twins and 87.6% of higher order births were LBW. The percentage of births that were multiples has been relatively stable over the last three years. The total percentage of multiple births (twins, triplets or more) was 4.5% in 2008, which has decreased 8% from 2002 (4.9%). White mothers continue to have the highest percentage of multiple births. These data are published annually and widely disseminated in the Massachusetts Birth Book. Massachusetts is one of only 14 states with mandated private insurance coverage for fertility treatments. As a result, Massachusetts has the highest proportion of ART procedures per population in the U.S., and consequently ranks first in the nation in the proportion of multiple births. MDPH is beginning two studies using linked data from the PELL data system to examine adverse perinatal and child health outcomes associated with ART use.

**Health Status Indicators 02A:** *The percent of live births weighing less than 1,500 grams.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

Annual Objective and Performance Data	2005	2006	2007	2008	2009
---------------------------------------	------	------	------	------	------

Annual Indicator	1.4	1.3	1.4	1.3	1.3
Numerator	1098	1041	1053	1006	
Denominator	76824	77670	77934	76969	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

#### Notes - 2009

2009 birth data are not available. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

#### Notes - 2008

Data for both the numerator and denominator are taken from MDPH Vital Records for calendar year 2008. This is the most recent year of data available. The denominator is all resident births for the year.

#### Notes - 2007

Data for both the numerator and denominator are taken from MDPH Vital Records for calendar year 2007. The denominator is all resident births for the year.

#### Narrative:

In addition to the reasons described under HSI#01A for monitoring LBW births in general, the percent of live births that are very low birth weight (VLBW, weighing less than 1,500 grams) is of primary importance since these infants are at highest risk of morbidity and mortality. The percentage of VLBW infants in MA in 2008 (1.3%) has been relatively stable over the past 10 years. MDPH uses this HSI to monitor the prevalence of VLBW infants and to track progress toward achieving the Healthy People 2010 goal of 0.9% VLBW births. These data are published annually and widely disseminated in the Massachusetts Birth Book. Each year with the release of the Birth Book, MDPH creates Community Packets which provide city/town specific data on the proportion of VLBW infants among infants who died in the first year of life. Data on percent VLBW and preterm infants born at each maternal and newborn care facility in MA are also used to monitor adherence to new perinatal regulations, implemented in March 2006, to ensure that infants are born at birth hospitals licensed at a level of care that is appropriate for their anticipated level of need. This HSI also enables MDPH to monitor disparities in VLBW by race/ethnicity and other socio-demographic factors (e.g., Medicaid vs. non-Medicaid).

#### Health Status Indicators 02B: *The percent of live singleton births weighing less than 1,500 grams.*

##### Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Indicator	1.0	0.9	0.9	0.9	0.9
Numerator	701	687	693	627	
Denominator	73258	74146	74498	73475	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3					

years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

#### Notes - 2009

2009 birth data are not available. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

#### Notes - 2008

Data for both the numerator and denominator are taken from MDPH Vital Records for calendar year 2007. This is the most recent year of data available. The denominator is all resident singleton births for the year.

#### Notes - 2007

Data for both the numerator and denominator are taken from MDPH Vital Records for calendar year 2007. The denominator is all resident singleton births for the year.

#### Narrative:

The percentage of VLBW infants among multiple births is much larger than among singletons. In addition to monitoring the overall prevalence of VLBW infants (as described under HSI#02A), MDPH stratifies trends in VLBW by plurality. This allows an estimation of what proportion of the increase in VLBW births can be accounted for by the increase in multiple births. In 2008, 0.9% of singleton births were VLBW, whereas 9.7% of twins and 42.6% of higher order births were VLBW. These data are published annually and widely disseminated in the Massachusetts Birth Book.

#### Health Status Indicators 03A: *The death rate per 100,000 due to unintentional injuries among children aged 14 years and younger.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Indicator	3.2	3.4	2.9	2.7	2.7
Numerator	39	41	34	31	
Denominator	1214584	1202482	1188128	1148340	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

#### Notes - 2009

2009 death data are not available. We have estimated a similar rate to that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

#### Notes - 2008

Data on deaths are taken from MDPH Vital Records for calendar years 2006-2008. Rates are calculated as rolling 3-year averages. (I.e. the 2008 numerator is the sum of the 2006, 2007, and 2008 numbers of deaths (41, 23, and 29 respectively) and the denominator is the sum of the most recent Massachusetts population estimates for the age group for the same years, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting

denominators and age-specific rates may differ from those previously reported or published elsewhere.

#### **Notes - 2007**

Data on deaths are taken from MDPH Vital Records for calendar years 2005-2007. Rates are calculated as rolling 3-year averages. (I.e. the 2006 numerator is the sum of the 2005, 2006, and 2007 numbers of deaths (37,41, and 23 respectively) and the denominator is the sum of the Massachusetts population estimates for the age group for the same years, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

#### **Narrative:**

The six Health Status Indicators dealing with unintentional injuries to children and adolescents are core MCH and public health indicators used on a regular basis for a number of purposes. Massachusetts has been a leader in the development of injury prevention and control programs based on data analysis. We have dedicated epidemiology resources and provide leadership using injury surveillance data, expanding data utilization and applying data to public health policy. Surveillance of unintentional injuries utilizing statewide death and hospital discharge data and dissemination of findings to DPH program staff as well as state and local audiences continues.

Unintentional injuries are the leading cause of death among MA children aged 1-14 years of age. From 1990 to 2008 the unintentional injury death rate for children 0 to 14 yrs declined from 6.2 to 2.7 per 100,000 (N=71 and N= 29, respectively). Our ongoing surveillance of these deaths includes examination of data by age subgroups (<1, 1-4, 5-9 and 10-14 years), sex, race/ethnicity, and by injury cause. The 2007 data (the latest available in detail) indicate that the cause of unintentional injury deaths among children in MA varies by age subgroup, with suffocation the leading cause among infants, drowning the leading cause among children 1-4 years, and motor vehicle traffic (including occupant, bicyclists and pedestrian) the leading cause among children 5-14 years. These Vital Records data are used in conjunction with population-based data sources containing information on the magnitude, causes and risk factors for nonfatal injuries in MA, providing us with a rich and comprehensive picture of the injury problem within the Commonwealth. The findings from these surveillance databases assist us in directing our prevention efforts.

Unintentional injury death data for MA children 0-14 years are disseminated in our annual comprehensive state death report (the injury epidemiologist assists in the analysis and written presentation of the injury chapter of this report and conducts additional analyses targeted more specifically on children and youth), as well as in a variety of injury specific reports, presentations, custom data requests from a variety of public and private organizations, and in MassCHIP, the MDPH's publicly accessible query-based system. For example, the MDPH's Injury Surveillance Program released a comprehensive report entitled "Injuries to Massachusetts Children and Youth" in January 2010. These data have also been shared with and utilized by state agency work groups (including an interagency group working on infant safe sleep and a window fall prevention workgroup), and by child fatality review (CFR) teams. They have also been included in a number of grant applications and are also presented in detail (by specific cause and by County or District of residence) in our state's Child Fatality Review Annual Reports.

**Health Status Indicators 03B:** *The death rate per 100,000 for unintentional injuries among children aged 14 years and younger due to motor vehicle crashes.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

Annual Objective and Performance	2005	2006	2007	2008	2009
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<b>Data</b>					
Annual Indicator	1.3	1.2	0.8	0.7	0.7
Numerator	16	14	9	8	
Denominator	1214584	1202482	1188128	1148340	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

#### **Notes - 2009**

2009 death data are not available. We have estimated a similar rate to that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

#### **Notes - 2008**

Data on deaths are taken from MDPH Vital Records for calendar years 2006-2008. Rates are calculated as rolling 3-year averages. (I.e. the 2008 numerator is the sum of the 2006, 2007, and 2008 numbers of deaths (12, 5, and 6 respectively) and the denominator is the sum of the most recent Massachusetts population estimates for the age group for the same years, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

#### **Notes - 2007**

Data on deaths are taken from MDPH Vital Records for calendar years 2005 - 2007. Rates are calculated as rolling 3-year averages. (I.e. the 2006 numerator is the sum of the 2005, 2006, and 2007 numbers of deaths (10, 12, and 5 respectively) and the denominator is the sum of the most recent Massachusetts population estimates for the age group for the same years, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

#### **Narrative:**

See general comments under Health Status Indicator # 03A. More detailed analyses on this HSI enable us to examine the proportion of motor vehicle-related deaths by person type (occupant, motorcyclist, MV-pedestrian, and MV-bicyclist) and by age group. Our child booster seat law went into effect June 8, 2008 and this HSI is being used to evaluate the impact of this law on MV-occupant injuries among young children.

We have also used our pedestrian death and nonfatal data to understand the magnitude of the pedestrian injury problem around MA by age subgroup and geographic region. We assist the SAFEKIDS coalition with their annual Safe Routes To School project in the city of Holyoke, a poor community in western MA. The data will be used to evaluate the impact of that project. In addition, through partnership with pedestrian safety advocates and informed with available data, legislation was passed in 2009 giving local city councils the ability to levy fines to homeowners/businesses for failure to clear snow and ice on sidewalks.

We continue to use our surveillance data on occupant injuries extensively in our work to promote a primary seat belt law in MA, incorporating the data findings into a fact sheet which has been used widely by policy makers.



**Health Status Indicators 03C:** *The death rate per 100,000 from unintentional injuries due to motor vehicle crashes among youth aged 15 through 24 years.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Indicator	13.0	13.3	14.2	9.4	9.4
Numerator	111	119	129	87	
Denominator	851856	895707	906161	925382	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

**Notes - 2009**

2009 death data are not available. We have estimated a similar rate to that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

**Notes - 2008**

Data on deaths are taken from MDPH Vital Records for calendar year 2008 (the most recent year available). The 2008 denominator is from the most recent population estimates for Massachusetts, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

The dramatic drop in the number of deaths may be due to the implementation of a Massachusetts graduated driver law which addresses hours of operation for younger drivers and limits non-adult passengers. It also substantially raised the penalties for violations.

**Notes - 2007**

Data on deaths are taken from MDPH Vital Records for calendar year 2007. The 2007 denominator is from the population estimates for Massachusetts, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

**Narrative:**

See general comments under Health Status Indicator # 03A and HSI #03B. Recent examples of using data on unintentional injuries due to motor vehicle crashes among adolescents and young adults to influence policy and practice are partnering with the Injury Community Planning Group, known as the Massachusetts Prevent Injuries Now Network (Mass PINN) and the MA Coalition for Adolescent Road Safety to create an educational and marketing campaign on risky teen occupant behaviors (which have already been affected by recently toughened junior operator regulations).

MDPH staff sit on the MA Registry of Motor Vehicle's (RMV) Junior Operator License Advisory Committee, where state data is shared pertaining to adolescent drivers. Death data is used by the RMV to evaluate the effects of the Junior Operator law, which was expanded in 2007. In addition, during the past year we implemented some of the recommendations contained in a legislative report on drowsy driving. These included a paid media campaign funded by Harvard sleep researchers and Herb Chambers auto dealership. In addition, we co-hosted a symposium on adolescent distracted driving in April 2010 on Cape Cod.

Massachusetts is adding this indicator as one of our State Performance Measures, based on our 5-Year Needs Assessment and priority-setting analyses.

**Health Status Indicators 04A:** *The rate per 100,000 of all nonfatal injuries among children aged 14 years and younger.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

Annual Objective and Performance Data	2005	2006	2007	2008	2009
Annual Indicator	212.4	210.0	216.1	218.8	218
Numerator	2570	2491	2524	2387	
Denominator	1210179	1186455	1167750	1090816	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

**Notes - 2009**

Hospitalization data for 2009 are not yet available from the Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

**Notes - 2008**

Hospitalization data are from Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy, 2008. Data are for Fiscal Years, not Calendar Years. The 2008 denominator is from the most recent population estimates for Massachusetts, as provided in MassCHIP. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

**Notes - 2007**

Hospitalization data are from Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy, 2007. Data are for Fiscal Years, not Calendar Years and have been revised based on the final data.

The 2007 denominator is from the population estimates for Massachusetts, as provided in MassCHIP. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

**Narrative:**

See general comments under Health Status Indicator # 03A and #03B. In addition to the detailed surveillance of injury deaths to children and adolescents, we utilize the statewide hospital and emergency department databases to monitor the magnitude, trends of nonfatal injuries and to describe the demographic groups at greatest risk. The newly developed state trauma database contains information on seat belt use, child safety seat use, and other protective devices used by the injured patients, alcohol and drug involvement, as well as information on injury severity. Once analyzed, this data will be incorporated into reports, materials used to inform policy, and used to evaluate policies and programs aimed at reducing injuries.

Data on nonfatal injuries among children ages 14 years and younger is currently primarily derived

from the MA statewide inpatient hospital, observation stay and emergency department databases, which have traditionally had excellent external cause of injury coding (E coding) rates. The E code quality (completeness) of the observation stay data for FY2007 was significantly reduced from previous years (from 80% in FY2006 to <40% in FY2007). However, with the FY2008 database, the E code rate in the Observation Stay Database is now back to 80%.

We have been able to use our nonfatal injury data to inform our work on reducing window fall injuries (identifying high risk communities, evaluating the Boston intervention program and for legislation to replicate the Boston intervention statewide), bicycle and pedestrian injuries, playground injuries, camp injuries, and traumatic brain injuries (distribution of over 2000 CDC "Heads Up" kits aimed at youth sports concussion prevention, hosting trainings for coaches and parent volunteers). We share our nonfatal injury data with the MA Department of Children and Families and other injury partners to identify priority injuries for prevention and to identify communities with the highest rates of nonfatal injury.

**Health Status Indicators 04B:** *The rate per 100,000 of nonfatal injuries due to motor vehicle crashes among children aged 14 years and younger.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	15.5	17.0	16.3	15.9	15.8
Numerator	188	202	190	173	
Denominator	1210179	1186455	1167750	1090816	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

**Notes - 2009**

Hospitalization data for 2009 are not yet available from the Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

**Notes - 2008**

Hospitalization data are from Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy, 2008. Data are for Fiscal Years, not Calendar Years. The 2008 denominator is from the most recent population estimates for Massachusetts, as provided in MassCHIP. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

**Notes - 2007**

Hospitalization data are from Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy, 2007. Data are for Fiscal Years, not Calendar Years and have been revised based on the final data.

The 2007 denominator is from the population estimates for Massachusetts, as provided in

MassCHIP. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

**Narrative:**

See general comments under Health Status Indicator # 03A and #04A and comments specific to MV injuries in children in Health Status Indicator #03B.

**Health Status Indicators 04C:** *The rate per 100,000 of nonfatal injuries due to motor vehicle crashes among youth aged 15 through 24 years.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	123.1	113.3	109.7	85.4	85
Numerator	1049	1015	994	790	
Denominator	851856	895707	906161	925382	
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

**Notes - 2009**

Hospitalization data for 2009 are not yet available from the Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy. We have estimated the same rate as that for 2008. See 2008 for the most recent actual data and see the Note for 2008 for data sources and other comments.

**Notes - 2008**

Hospitalization data are from Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy, 2008. Data are for Fiscal Years, not Calendar Years. The 2008 denominator is from the most recent population estimates for Massachusetts, as provided in MassCHIP. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

The dramatic drop in the hospitalization rate may be due to the implementation of a Massachusetts graduated driver law which addresses hours of operation for younger drivers and limits non-adult passengers. It also substantially raised the penalties for violations.

**Notes - 2007**

Hospitalization data are from Massachusetts Uniform Hospital Discharge Data System (UHDDS), Division of Health Care Finance and Policy, 2007. Data are for Fiscal Years, not Calendar Years and have been revised based on the final data.

The 2007 denominator is from the population estimates for Massachusetts, as provided in MassCHIP. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

**Narrative:**

See general comments under Health Status Indicator # 03A and #04A and comments specific to MV injuries in adolescents and young adults in #03C.

**Health Status Indicators 05A:** *The rate per 1,000 women aged 15 through 19 years with a reported case of chlamydia.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	18.3	17.9	18.3	18.6	19.2
Numerator	3823	3955	4116	4249	4386
Denominator	208824	221338	224406	228275	228275
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

**Notes - 2009**

Cases of chlamydia: Massachusetts Department of Public Health. Sexually Transmitted Diseases Program, 2009 (calendar year data).

The 2009 denominator is estimated to be the same as 2008 (see previous year's note). The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

**Notes - 2008**

Data sources:

Cases of chlamydia: Massachusetts Department of Public Health. Sexually Transmitted Diseases Program, 2008 (calendar year data).

The 2008 denominator is from population estimates for Massachusetts, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

The denominator has been updated, resulting in a revised 2008 rate.

**Notes - 2007**

Data sources:

Cases of chlamydia: Massachusetts Department of Public Health. Sexually Transmitted Diseases Program, 2007 (calendar year data).

The 2007 denominator is from population estimates for Massachusetts, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

**Narrative:**

Chlamydia trachomatis is a common cause of urethritis and cervicitis, and sequelae include pelvic inflammatory disease, ectopic pregnancy, and tubal factor infertility. MDPH uses this HSI to monitor trends in diagnoses of chlamydia infections among youth and to identify racial/ethnic disparities in diagnoses. Compared to older adults, sexually active youth (aged 15--19 years) and young adults (aged 20--24 years) are at higher risk for acquiring sexually transmitted infections. This higher risk is due to a combination of behavioral, biological and cultural factors, accessibility to quality health care, and concerns about confidentiality. The majority of reported chlamydia infections in Massachusetts are in youth and young adults. According to the MDPH Bureau of Communicable Disease Control surveillance data, in 2009 MDPH received 18,814 reports of chlamydia, the highest recorded number in over 15 years. Among them, 4,386 cases of chlamydia were reported among females aged 15-19 years. Using most recent population

denominators, the rate of chlamydia diagnoses in 2009 among females aged 15-19 years was 19.2 per 1,000 compared with 18.6 per 1,000 in 2008. In addition, marked racial/ethnic disparities in reported chlamydia cases exist in Massachusetts. In 2009 the chlamydia rates among black, non-Hispanics and Hispanics were 19 and 14 times the white rate, respectively. Since chlamydia infection is often asymptomatic and diagnosis is dependent on laboratory testing, increased screening for chlamydia infection is one cause of increased reports of cases. Periodic screening is now recommended for all sexually active young women, and successful implementation of these screening recommendations leads to increases in reported cases. In addition, increases in chlamydia case reports may also stem from improvements in electronic laboratory reporting (currently 28 of approximately 75 clinical laboratories are certified by the state for electronic lab reporting).

Since 1997, 30 Massachusetts clinics (including Title X and state-funded Family Planning clinics) have participated in the CDC-funded Infertility Prevention Project, the goal of which is to reduce infertility and other health consequences of chlamydia infection through increased screening and treatment of high-risk women. In 2008, 15,586 specimens were tested as part of the IPP, and the increased screening at these clinics has contributed to the increasing number of diagnosed chlamydia cases in women. IPP sites have also focused attention on rescreening young women with previous chlamydia diagnoses. Potential explanations for the observed racial/ethnic differences in chlamydia rates include improved insurance coverage for non-Hispanic black and Hispanic youth with resultant increases in screening, and increases in the number of youth and young adults of color living in Massachusetts who might not be accounted for in the denominators used for rate calculations.

**Health Status Indicators 05B:** *The rate per 1,000 women aged 20 through 44 years with a reported case of chlamydia.*

Health Status Indicators Forms for HSI 01 through 05 - Multi-Year Data

<b>Annual Objective and Performance Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Indicator	5.6	5.9	6.6	7.0	7.7
Numerator	6539	6759	7524	7927	8680
Denominator	1168750	1144172	1133164	1129589	1129589
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?				Final	Provisional

**Notes - 2009**

Data sources:

Cases of chlamydia: Massachusetts Department of Public Health. Sexually Transmitted Diseases Program, 2009 (calendar year data).

The 2009 denominator is estimated to be the same as 2008 (see previous year's note). The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

**Notes - 2008**

Data sources:

Cases of chlamydia: Massachusetts Department of Public Health. Sexually Transmitted Diseases Program, 2008 (calendar year data).

The 2008 denominator is from population estimates for Massachusetts, as provided by the MDPH

Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

The denominator has been updated, resulting in a revised 2008 rate.

#### Notes - 2007

Cases of chlamydia: Massachusetts Department of Public Health. Sexually Transmitted Diseases Program, 2007 (calendar year data).

The 2007 denominator is from population estimates for Massachusetts, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominator and age-specific rate may differ from those previously reported or published elsewhere.

#### Narrative:

Chlamydia infections in women are more likely than those in men to remain undetected, leading to delayed diagnosis and treatment and ultimately more untreated infections [The Hidden Epidemic, Institute of Medicine, National Academy Press, Washington, D.C., 1997]. Untreated chlamydia infections in women can lead to serious health consequences, including pelvic inflammatory disease, infertility, and ectopic pregnancy. MDPH uses this HSI to monitor trends in diagnoses of chlamydia infections among women. According to the MDPH Bureau of Communicable Disease Control surveillance data, 8,680 cases of chlamydia were reported among females aged 20-44 years. The rate of chlamydia diagnoses among females aged 20-44 years was 7.6 per 1,000 in 2009 compared with 7.0 per 1,000 in 2008. Potential explanations for the increased rate include many of those described for the younger population in HSI 05A.

#### Health Status Indicators 06A: *Infants and children aged 0 through 24 years enumerated by sub-populations of age group and race. (Demographics)*

##### HSI #06A - Demographics (TOTAL POPULATION)

<b>CATEGORY</b> TOTAL POPULATION BY RACE	<b>Total All Races</b>	<b>White</b>	<b>Black or African American</b>	<b>American Indian or Native Alaskan</b>	<b>Asian</b>	<b>Native Hawaiian or Other Pacific Islander</b>	<b>More than one race reported</b>	<b>Other and Unknown</b>
Infants 0 to 1	76714	53074	6680	213	5006	0	0	11741
Children 1 through 4	306854	212296	26720	850	20023	0	0	46965
Children 5 through 9	384444	278558	30806	1054	22546	0	0	51480
Children 10 through 14	399518	300666	30706	966	20284	0	0	46896
Children 15 through 19	460398	348677	36541	1325	22726	0	0	51129
Children 20 through 24	464984	350722	36298	1398	27295	0	0	49271
Children 0 through 24	2092912	1543993	167751	5806	117880	0	0	257482

#### Notes - 2011

Total Population, all ages:

Data Source: National Center for Health Statistics. Estimates of the 7/1/2000-7/1/2008, population from the Vintage 2008 postcensal series by year, county, age, race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau; released May 14, 2009. As prepared and reported by the MDPH Bureau of Health Statistics, Information,

## Research and Evaluation.

These detailed estimates by age group and race/ethnicity do not break out the standard census age group of 0 – 4 into separate groups for infants 0 - 1 and for children 1 – 4. Since these are otherwise the only reasonably current estimates available by age and race/ethnicity, we have placed 20% of the 0 – 4 estimated numbers in the 0 – 1 row and the remaining 80% in the 1 – 4 row.

Also note that these estimates are for combined race/Hispanic ethnicity and thus the more accurate column headings are White, non-Hispanic, Black non-Hispanic, Native American, non-Hispanic, Asian non-Hispanic, and Hispanic (all counted under “Other and Unknown” in Table 06A). Persons of Hispanic ethnicity are NOT included in the race categories.

### Narrative:

Massachusetts publishes estimated tables equivalent to HSIs #06A and 06B annually with Vital Records reports on births and deaths, using the sources as noted above. Data are presented for mutually exclusive categories of race and Hispanic ethnicity (i.e. White Non-Hispanic, Black non-Hispanic, Native American Non-Hispanic, Asian Non-Hispanic, and Hispanic) and also by all age groups and by gender. These estimates are used to calculate state-wide population-based rates, both in those reports and for this application.

New, more detailed population numbers will be available after the 2010 Census.

Since the 2000 Census, the Massachusetts population ages 0 -- 24 appears to have declined slightly and Hispanic and Black Non-Hispanic children and youth have increased as a percentage of the total population.

### Health Status Indicators 06B: *Infants and children aged 0 through 24 years enumerated by sub-populations of age group and Hispanic ethnicity. (Demographics)*

#### HSI #06B - Demographics (TOTAL POPULATION)

<b>CATEGORY</b> TOTAL POPULATION BY HISPANIC ETHNICITY	<b>Total NOT Hispanic or Latino</b>	<b>Total Hispanic or Latino</b>	<b>Ethnicity Not Reported</b>
Infants 0 to 1	64973	11741	0
Children 1 through 4	259889	46965	0
Children 5 through 9	332964	51480	0
Children 10 through 14	352622	46896	0
Children 15 through 19	409269	51129	0
Children 20 through 24	415713	49271	0
Children 0 through 24	1835430	257482	0

### Notes - 2011

See Note for #06A for data source and further information.

### Narrative:

See text for Health Status Indicator # 06A.



**Health Status Indicators 07A:** *Live births to women (of all ages) enumerated by maternal age and race. (Demographics)*

HSI #07A - Demographics (Total live births)

<b>CATEGORY</b> Total live births	<b>Total All Races</b>	<b>White</b>	<b>Black or African American</b>	<b>American Indian or Native Alaskan</b>	<b>Asian</b>	<b>Native Hawaiian or Other Pacific Islander</b>	<b>More than one race reported</b>	<b>Other and Unknown</b>
Women < 15	40	7	6	0	1	0	0	26
Women 15 through 17	1361	608	179	3	44	0	0	527
Women 18 through 19	3222	1629	426	11	109	0	0	1047
Women 20 through 34	54646	37174	4847	140	4387	0	0	8098
Women 35 or older	17700	13620	1319	38	1436	0	0	1287
Women of all ages	76969	53038	6777	192	5977	0	0	10985

**Notes - 2011**

Data Source: MDPH Vital Records, Births for calendar year 2008 (the most recent year available). 2009 birth data are not yet available.

The race category labeled "Asian" also includes persons of Other Pacific Islander races. Birth certificate reporting of race does not include the category of "more than one race reported."

The "Other" race category has a large number of women who selected Hispanic ethnicities as their race.

**Narrative:**

MDPH uses HSI#07A to understand the trend in number of births to MA mothers by age and race and to monitor the changing demographics of the birth population. The overall number of live births to MA women has declined by 17% since 1990. Another important indicator is the age distribution of mothers giving birth in MA. Compared with 1990, birth rates have increased among mothers aged 30 years and older, and decreased among mother aged 30 or younger. The largest increases in birth rates have been observed among the older age groups (40-44, 45-49, and 50-54 years), while the largest decreases have been observed among the youngest groups (10-14 and 15-19 years). MDPH also examines mean maternal age at first birth (27.7) by race/ethnicity. Hispanic mothers have the youngest average age at first birth (23.2 years) whereas Asian mothers (29.3) have the highest. The percentage of MA births to minority women (including all mothers who were not non-Hispanic white) increased from 22% in 1990 to 33% in 2008.

The percentage of total births to White Non-Hispanic women continues to decline (an overall decrease of 14% since 1990), while the percentages to Asian, Hispanic, and black Non-Hispanic mothers have risen 114%, 56%, and 12% respectively during that time period. The percentages to non-white mothers remained stable from 2007.

Massachusetts has one of the lowest teen birth rates in the country. Teen birth rates have declined for all race and ethnicity groups compared with 1997 rates, but the rate for Hispanics is still over 5 time higher than that for white teens.

MA continues to closely follow these changing trends and the data are published annually and

widely disseminated in the Massachusetts Birth Book.

**Health Status Indicators 07B:** *Live births to women (of all ages) enumerated by maternal age and Hispanic ethnicity. (Demographics)*

HSI #07B - Demographics (Total live births)

<b>CATEGORY</b>	<b>Total NOT Hispanic or Latino</b>	<b>Total Hispanic or Latino</b>	<b>Ethnicity Not Reported</b>
Total live births			
Women < 15	14	26	0
Women 15 through 17	781	565	15
Women 18 through 19	2092	1105	25
Women 20 through 34	45781	7996	869
Women 35 or older	16163	1203	334
Women of all ages	64831	10895	1243

**Notes - 2011**

Data Source: MDPH Vital Records, Births for calendar year 2008 (the most recent year available). 2009 birth data are not yet available.

Hispanic ethnicity is derived from the "mother's ancestry" question on the Parent (mother) Worksheet. There is no "Hispanic" question. Therefore, the "Hispanic" category was populated by combining the count of all women who selected an Hispanic ancestry: Puerto Rican, Dominican, Mexican, Cuban, Colombian, Salvadoran, Other Central American, Other South American, and Other Hispanic. The "Non-Hispanic" group is made up of those who selected any ancestry other than the Hispanic choices. There are no women who did not report Hispanic ethnicity according to this method. The "Ethnicity not reported" group is those who did not select an Hispanic ancestry or any other of the 39 choices.

**Narrative:**

HSI#07B is also used to understand the changing demographics of the population of mothers giving birth in MA. The proportion of births to Hispanic mothers increased from 9% in 1990 to 14.2% in 2008 (up slightly from 13.9% in 2007). In 2008, there was substantial ethnic diversity among women giving birth with only 40% of mothers classifying themselves as American. The next largest ethnic groups were European (19%), Puerto Rican (6%), African-American (4%), Brazilian (3%) and Dominican (3%). MDPH also analyzes birth data by maternal nativity. The percentage of MA births to foreign-born mothers has been growing in recent years. In 1990, one out of seven births was to a foreign-born mother whereas in 2008 more than one in four births was to a foreign-born mother. MA continues to closely follow these changing trends to identify emerging populations and the data are published annually and widely disseminated in the Massachusetts Birth Book.

**Health Status Indicators 08A:** *Deaths of infants and children aged 0 through 24 years enumerated by age subgroup and race. (Demographics)*

HSI #08A - Demographics (Total deaths)

<b>CATEGORY</b>	<b>Total</b>	<b>White</b>	<b>Black or African</b>	<b>American Indian or</b>	<b>Asian</b>	<b>Native Hawaiian</b>	<b>More than one race</b>	<b>Other and Unknown</b>
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Total deaths	All Races		American	Native Alaskan		or Other Pacific Islander	reported	
Infants 0 to 1	381	223	87	3	16	0	0	52
Children 1 through 4	51	36	5	0	1	0	0	9
Children 5 through 9	30	17	6	0	1	0	0	6
Children 10 through 14	38	23	7	0	3	0	0	5
Children 15 through 19	154	100	29	1	2	0	0	22
Children 20 through 24	267	192	45	0	11	0	0	19
Children 0 through 24	921	591	179	4	34	0	0	113

#### Notes - 2011

Data Source: MDPH Vital Records, Deaths for calendar year 2008 (the most recent year available). Mortality data for 2009 are not yet available.

The race category labeled "Asian" also includes persons of Native Hawaiian or Other Pacific Islander races. Death certificate reporting of race does not include the category of "more than one race reported."

The category "Other and Unknown" includes only persons who selected "Hispanic" as a race.

#### Narrative:

Massachusetts has death rates for children and young adults that are well below national rates for all age sub-groups and that have already met Healthy People 2010 targets for age groups 1-4, 5-9, and 10-14 and are within 25% of those targets for ages 15-19 and 20-24. Rates are highest among black Non-Hispanic and Hispanic youth of all ages, with the lowest rates for ages 1-14 for white Non-Hispanics but for Asians for ages 15-24.

As with births, these data, with many additional analyses by gender, geography, underlying causes, etc. are published annually by the Commonwealth and actively used to guide policy and program services.

#### Health Status Indicators 08B: Deaths of infants and children aged 0 through 24 years enumerated by age subgroup and Hispanic ethnicity. (Demographics)

HSI #08B - Demographics (Total deaths)

<b>CATEGORY</b>	<b>Total NOT Hispanic or Latino</b>	<b>Total Hispanic or Latino</b>	<b>Ethnicity Not Reported</b>
Total deaths			
Infants 0 to 1	296	85	0
Children 1 through 4	39	12	0
Children 5 through 9	23	7	0
Children 10 through 14	30	8	0
Children 15 through 19	130	24	0

Children 20 through 24	237	30	0
Children 0 through 24	755	166	0

#### Notes - 2011

Data Source: MDPH Vital Records, Deaths for calendar year 2008 (the most recent year available). Mortality data for 2009 are not yet available.

#### Narrative:

See comments above for Health Status Indicator #08A.

#### Health Status Indicators 09A: *Infants and children aged 0 through 19 years in miscellaneous situations or enrolled in various State programs enumerated by race. (Demographics)*

##### HSI #09A - Demographics (Miscellaneous Data)

<b>CATEGORY</b> Misc Data BY RACE	<b>Total All Races</b>	<b>White</b>	<b>Black or African American</b>	<b>American Indian or Native Alaskan</b>	<b>Asian</b>	<b>Native Hawaiian or Other Pacific Islander</b>	<b>More than one race reported</b>	<b>Other and Unknown</b>	<b>Specific Reporting Year</b>
All children 0 through 19	1627928	1193271	131453	4408	90585	0	0	208211	2008
Percent in household headed by single parent	29.0	20.0	59.0	0.0	18.0	0.0	0.0	0.0	2008
Percent in TANF (Grant) families	3.9	0.0	0.0	0.0	0.0	0.0	0.0	3.9	2009
Number enrolled in Medicaid	545974	0	0	0	0	0	0	545974	2009
Number enrolled in SCHIP	80237	0	0	0	0	0	0	80237	2009
Number living in foster home care	6399	2851	972	13	118	0	0	2445	2009
Number enrolled in food stamp program	208000	102128	32656	0	0	0	0	73216	2008
Number enrolled in WIC	153482	68914	28407	184	8335	0	0	47642	2009
Rate (per 100,000) of juvenile crime arrests	79.0	0.0	0.0	0.0	0.0	0.0	0.0	1314.0	2008
Percentage of high school drop-outs (grade 9 through 12)	2.9	1.8	5.6	4.3	1.7	3.8	3.4	7.5	2009

## Notes - 2011

Data Source for All Children 0 through 19: National Center for Health Statistics. Postcensal estimates of the resident population for 7/1/2000-7/1/2008, by year, county, age, bridged race, Hispanic origin, and sex (Vintage 2008). Prepared under a collaborative arrangement with the U.S. Census Bureau; released May 14, 2009. As prepared and reported by the MDPH Bureau of Health Statistics, Information, Research and Evaluation.

Data source for % in Household headed by single parent: Data Source: 2008 data. Population Reference Bureau, analysis of data from the U.S. Census Bureau, 2008 American Community Survey (ACS). As reported in Kids Count Data Center, Annie E. Casey Foundation.  
<http://datacenter.kidscount.org/data/acrossstates/>.

Data are reported for children under 18. Break-outs are not available by race or ethnicity.

Data Source for % in TANF families: Administration for Children and Families; Office of Family Assistance, Data Reports. Data are for Fiscal Year 2009 (Oct. 2008 - Sept. 2009); Average Monthly Number of Child Recipients, FY2009."  
([http://www.acf.hhs.gov/programs/ofa/data-reports/caseload/monthly/2009\\_03\\_tan.htm](http://www.acf.hhs.gov/programs/ofa/data-reports/caseload/monthly/2009_03_tan.htm))

The % calculation is based on the 2009 monthly average ACF number of child recipients (63,315) divided by the estimated 2008 child population 0 – 19 of 1,627,928 (see above). Data are not available by race or Hispanic ethnicity.

Data Source for number enrolled in Medicaid: MassHealth (Massachusetts Medicaid agency). Unduplicated number of children (defined as under age 19) ever enrolled in the Medicaid program in FFY 2009, as reported by the state into the CHIP Statistical Enrollment Data System (SEDS). The total includes children served under Title XIX (non-CHIP) (483,167), and Medicaid Expansion (62,807). Data are not available by race/ethnicity.

Data Source for number enrolled in Medicaid: MassHealth (Massachusetts Medicaid agency). Unduplicated number of children (defined as under age 19) ever enrolled in the Medicaid program in FFY 2009, as reported by the state into the CHIP Statistical Enrollment Data System (SEDS). The total represents children served the Separate Child Health Program. Children enrolled through the state's Medicaid expansion options are counted in the previous row of Form 21. Data are not available by race/ethnicity.

Data Source for number enrolled in food stamp program: USDA, Food and Nutrition Service, FY2008 Food Stamp Program Quality Control sample, as reported in "Characteristics of Food Stamp Households: Fiscal Year 2008." September 2009." Table B-11. Data on child participants are not available by race or Hispanic Ethnicity. However, 2007 data for Massachusetts participants by households (Table B-10) reported that 49.1% of SNAP households were White, 15.7% were African-American, 19.6% were Hispanic, 13.7% were other race/ethnic origin, and race/ethnicity was unknown for 1.9%. We have applied those percentages to the child participants. [2008 data household distribution by race/ethnicity were not used because of apparent reporting problems, with over 40% of the total being recorded as missing/unknown and only .9% as Hispanic.] ([www.fns.usda.gov/fns/research.htm](http://www.fns.usda.gov/fns/research.htm))

Data Source for number enrolled in WIC: Massachusetts WIC Program, MDPH. Enrollment as of 12/31/09. Note that this is lower than the total number of children who are served by WIC over the course of a year.

Data are reported by combined race/Hispanic ethnicity categories only. Therefore, the columns labeled "White," "Black," etc. are in fact reported as "White, non-Hispanic," "Black, non-Hispanic," etc. In Section 09A, Hispanics are included in the "Other and Unknown" column; they are reported separately in Section 09B. This limitation on the data means that the number of persons with known race is underreported.

Data Source for rate (per 100,000) of juvenile crime arrests: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention. "Juvenile Justice Bulletin: Juvenile Arrests 2008". December 2009. Analysis of arrest data from the FBI's Crime in the United States 2008 (Washington, DC: Federal Bureau of Investigation, 2009), tables 5 and 69, and population data from the National Center for Health Statistics' Estimates of the July 1, 2000–July 1, 2008, United States Resident Population From the Vintage 2008 Postcensal Series by Year, County, Age, Sex, Race, and Hispanic Origin.

Arrest data include violent crime, property crime, drug abuse, and weapons arrests. The rates are calculated as the number of arrests of persons younger than age 18 for every 100,000 persons ages 10 – 17. The Massachusetts rate is about 55% of the estimated juvenile arrest rate in the US. Data are not available by race/ethnicity.

Data Source for % of high school dropouts (grade 9 through 12): Massachusetts Department of Elementary and Secondary Education. "High School Dropouts 2008-09: Massachusetts Public Schools;" released March, 2010.

Data are reported by combined race/Hispanic ethnicity categories only. Therefore, the columns labeled "White," "Black," etc. are in fact reported as "White, non-Hispanic," "Black, non-Hispanic," etc. In Section 09A, Hispanics are included in the "Other and Unknown" column; they are reported separately in Section 09B. This limitation on the data means that the percent of persons with known race is underreported.

Data Source for number living in foster home care: Massachusetts Department of Social Services, 2009, as available in MassCHIP. Data are a snapshot for Calendar Year 2009.

#### **Narrative:**

Current data with the level of detail by age and race/ethnicity as indicated for Health Status Indicator #09A are not consistently available, as can be noted in the disparity among data years and details shown above. Some -- including WIC and drop-out rates -- are routinely available in standardized reports. Others are only periodically available, sometimes from estimates that do not provide details by race/ethnicity. Such national data books as Kids Count (published by the Annie E. Casey Foundation from a wide range of data sources) have proven helpful, although not all data elements are available each year.

However, regardless of these specific data points, the Department participates in the preparation of analyses examining these and other demographic indicators related to the well-being of mothers and children and promotes policies and programs based on the factors. For example, many of these data items, along with others, were used in the preparation of a collaborative document of MDPH and the Governor's Adolescent Health Council entitled "A Shared Vision for Massachusetts Youth and Young Adults," which was released in FY10.

These data and others demographic indicators, with detailed analyses at the community level, will also be used in the preparation of the Commonwealth's needs assessment and subsequent application for funding under the Home Visiting section of the new PPAAC health care reform legislation.

**Health Status Indicators 09B:** *Infants and children aged 0 through 19 years in miscellaneous situations or enrolled in various State programs enumerated by Hispanic ethnicity.*  
(Demographics)

HSI #09B - Demographics (Miscellaneous Data)

<b><u>CATEGORY</u></b>	<b>Total NOT Hispanic or</b>	<b>Total Hispanic or</b>	<b>Ethnicity Not Reported</b>	<b>Specific Reporting</b>
Miscellaneous Data BY				

HISPANIC ETHNICITY	Latino	Latino		Year
All children 0 through 19	1419717	208211	0	2008
Percent in household headed by single parent	0.0	64.0	0.0	2008
Percent in TANF (Grant) families	0.0	0.0	3.9	2009
Number enrolled in Medicaid	0	0	545974	2009
Number enrolled in SCHIP	0	0	80237	2009
Number living in foster home care	4247	1697	455	2009
Number enrolled in food stamp program	163280	40768	3952	2008
Number enrolled in WIC	105840	47642	0	2009
Rate (per 100,000) of juvenile crime arrests	0.0	0.0	1314.0	2008
Percentage of high school drop-outs (grade 9 through 12)	2.0	7.5	0.0	2009

#### Notes - 2011

See data source notes for corresponding 09A categories.

#### Narrative:

See comments above for Health Status Indicator #09A.

#### Health Status Indicators 10: *Geographic living area for all children aged 0 through 19 years.*

##### HSI #10 - Demographics (Geographic Living Area)

Geographic Living Area	Total
Living in metropolitan areas	1637928
Living in urban areas	1487926
Living in rural areas	140002
Living in frontier areas	0
<b>Total</b> - all children 0 through 19	1627928

#### Notes - 2011

Data Source: U.S. Bureau of the Census. According to the most recent alignments of Standard Metropolitan Areas, all of Massachusetts is included in an SMA. Therefore we have entered the entire child population as noted in the urban/rural categories listed below.

##### Data Sources:

For total number of children: Data Source: National Center for Health Statistics. Estimates of the 7/1/2000-7/1/2008, population from the Vintage 2008 postcensal series by year, county, age, race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau; released May 14, 2009. As prepared and reported by the MDPH Bureau of Health Statistics, Information, Research and Evaluation.

For Urban/Rural/Frontier distribution: U.S. Census Bureau. Census 2000 Summary File (SF 4) for Massachusetts. Massachusetts has no "Frontier" areas. The "Urban" and "Rural" numbers of children are estimates that use the percentage distribution of the entire population as reported in the SF 4 file (Table PCT2) multiplied by the 2000 Census count of children in the state (91.4% and 8.6% respectively for urban and rural residents). We have no reason to believe that children are significantly more or less likely to live in rural areas than are adults. These remain the most recent comprehensive data available on living location.

See data source note above for Living in Urban Areas.

**Narrative:**

Massachusetts is a primarily urban environment with several rural areas but no frontier areas. The Department supports an active Office of Rural Health and geography is a variable used frequently in analyses of maternal and child health, particularly in identifying areas of high need and in tailoring programs, outreach and training opportunities, and funding formulas to different populations.

**Health Status Indicators 11:** *Percent of the State population at various levels of the federal poverty level.*

HSI #11 - Demographics (Poverty Levels)

Poverty Levels	Total
Total Population	6497967.0
Percent Below: 50% of poverty	5.0
100% of poverty	11.3
200% of poverty	24.0

**Notes - 2011**

Total Population, all ages:

Data Source: National Center for Health Statistics. Estimates of the 7/1/2000-7/1/2008, population from the Vintage 2008 postcensal series by year, county, age, race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau; released May 14, 2009. As prepared and reported by the MDPH Bureau of Health Statistics, Information, Research and Evaluation. These estimates are not available by poverty status.

Data Source: Estimate from previous Census data; not reported for 2008 Current Population Survey reports.

Data Source: U.S. Census Bureau, Current Population Survey, 2009 Annual Social and Economic Supplement. (2008 data)  
[http://www.census.gov/hhes/www/cpstables/032009/pov/new46\\_100125\\_01.htm](http://www.census.gov/hhes/www/cpstables/032009/pov/new46_100125_01.htm).

Data Source: U.S. Census Bureau, Current Population Survey, 2009 Annual Social and Economic Supplement. (2008 data)  
[http://www.census.gov/hhes/www/cpstables/032009/pov/new46\\_185200\\_01.htm](http://www.census.gov/hhes/www/cpstables/032009/pov/new46_185200_01.htm).

**Narrative:**

Monitoring changes in poverty status -- and in the concentrations of greatest need across communities and population groups -- is an on-going process that influences virtually all programs and needs assessments. While the percentage of the overall population in poverty and near poverty is lower in Massachusetts than in the country as a whole, it remains a significant problem and one that is expected to rise until the economic crisis is resolved. Massachusetts has higher costs of housing and health care that are not fully accounted for in the standard poverty determinations and which make living in Massachusetts more difficult for many families.

**Health Status Indicators 12:** *Percent of the State population aged 0 through 19 years at various levels of the federal poverty level.*



#### HSI #12 - Demographics (Poverty Levels)

Poverty Levels	Total
Children 0 through 19 years old	1627928.0
Percent Below: 50% of poverty	5.0
100% of poverty	12.0
200% of poverty	26.0

#### Notes - 2011

Data Source: National Center for Health Statistics. Estimates of the 7/1/2000-7/1/2008, population from the Vintage 2008 postcensal series by year, county, age, race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau; released May 14, 2009. As prepared and reported by the MDPH Bureau of Health Statistics, Information, Research and Evaluation. These estimates are not available by poverty status. The ages reported here are 0 – 19.

Data Source: Population Reference Bureau, analysis of data from the U.S. Census Bureau, 2008 American Community Survey (ACS). As reported in Kids COUNT Data Center, Annie E. Casey Foundation. <http://datacenter.kidscount.org/data/acrossstates>.

Data Source: Population Reference Bureau, analysis of data from the U.S. Census Bureau, 2008 American Community Survey (ACS). As reported in Kids COUNT Data Center, Annie E. Casey Foundation. <http://datacenter.kidscount.org/data/acrossstates>.

Data Source: Population Reference Bureau, analysis of data from the U.S. Census Bureau, 2008 American Community Survey (ACS). As reported in Kids COUNT Data Center, Annie E. Casey Foundation. <http://datacenter.kidscount.org/data/acrossstates>.

#### Narrative:

Monitoring changes in poverty status -- and in the concentrations of greatest need across communities and population groups -- is an on-going process that influences virtually all programs and needs assessments. While the percentage of children in poverty and near poverty is less in Massachusetts than in the country as a whole, it remains a significant problem and one that is expected to rise until the economic crisis is resolved. Massachusetts has higher costs of housing and health care that are not fully accounted for in the standard poverty determinations and which make living in Massachusetts more difficult for many families. The percentage of children living in poverty continues to be higher than for the population as a whole.

## F. Other Program Activities

In addition to activities contributing to performance measures, a majority of Bureau programs conduct one-time and/or on-going activities directly focused on meeting one or more of the State's currently defined Priority Needs. A description of Program Activities related to our Current Priority Needs and not otherwise covered by the NPM and SPM narratives is attached to this section of the application; plans for FY11 are included for Priority Needs that will continue as a result of our Five-year Needs Assessment.

***An attachment is included in this section.***

## G. Technical Assistance

Massachusetts is considering asking for technical assistance from the Center for Medical Home Improvement (CMHI), which offers a variety of consultation services and has just been awarded a contract to be the National Center on Transition. They are conveniently based nearby in New Hampshire. We would like assistance and guidance in the identification and implementation of strategies to collaborate with primary care providers, specialty care providers, and schools to integrate health-related transition goals into IEPs for CYSHCN. A related need is to help us identify and implement ways to leverage a number of medical home initiatives that are underway in the Commonwealth to improve transition planning.

Both the further development of medical homes for all children and better transitions for CYSHCN (both from early childhood to school and from adolescence to adulthood) are among our new Priorities, and expert advice will help identify the most effective next steps. CMHI offers a number of consultation options (including QI and Learning Collaborative Efforts, Presentations / Workshops, and Development of Facilitation or Coaching Capacity. We have not yet explored the costs of their services but are intrigued with this unique combination of expertise in both medical home and transition.

## V. Budget Narrative

Budget and expenditure data from Forms 3, 4, and 5 are provided for the application year, interim year, and reporting year to assist the reviewer in analysis of the budget and expenditure narrative. For complete financial data, refer to all the financial data reported on Forms 2-5, especially when reviewing the federal allocation on Form 2 for the 30%/30%/10% breakdown for the budgets planned for primary and preventive care for children, children with special health care needs, and administrative costs.

### Form 3, State MCH Funding Profile

	FY 2009		FY 2010		FY 2011	
	Budgeted	Expended	Budgeted	Expended	Budgeted	Expended
<b>1. Federal Allocation</b> (Line1, Form 2)	11423430	10434045	11452801		11606516	
<b>2. Unobligated Balance</b> (Line2, Form 2)	320386	565706	153661		643484	
<b>3. State Funds</b> (Line3, Form 2)	76266360	71429119	51448647		49430150	
<b>4. Local MCH Funds</b> (Line4, Form 2)	0	0	0		0	
<b>5. Other Funds</b> (Line5, Form 2)	0	0	0		0	
<b>6. Program Income</b> (Line6, Form 2)	0	0	0		0	
<b>7. Subtotal</b>	88010176	82428870	63055109		61680150	
<b>8. Other Federal Funds</b> (Line10, Form 2)	132462710	136821214	147646533		145789844	
<b>9. Total</b> (Line11, Form 2)	220472886	219250084	210701642		207469994	

### Form 4, Budget Details By Types of Individuals Served (I) and Sources of Other Federal Funds

	FY 2009		FY 2010		FY 2011	
	Budgeted	Expended	Budgeted	Expended	Budgeted	Expended
<b>I. Federal-State MCH Block Grant Partnership</b>						
<b>a. Pregnant Women</b>	3268887	3019957	2043716		2068883	
<b>b. Infants &lt; 1 year old</b>	1348124	1100412	1048845		897567	

<b>c. Children 1 to 22 years old</b>	21909330	19747457	19651609		17958433	
<b>d. Children with Special Healthcare Needs</b>	52455583	49846994	33050485		32691414	
<b>e. Others</b>	7838791	7316008	6092422		6882889	
<b>f. Administration</b>	1189461	1398042	1168032		1180964	
<b>g. SUBTOTAL</b>	88010176	82428870	63055109		61680150	
<b>II. Other Federal Funds (under the control of the person responsible for administration of the Title V program).</b>						
<b>a. SPRANS</b>	509331		866429		951481	
<b>b. SSDI</b>	100000		100000		100000	
<b>c. CISS</b>	140000		105000		140000	
<b>d. Abstinence Education</b>	0		0		0	
<b>e. Healthy Start</b>	0		0		0	
<b>f. EMSC</b>	115000		115000		130000	
<b>g. WIC</b>	120518456		130152583		130249402	
<b>h. AIDS</b>	879806		1040251		964806	
<b>i. CDC</b>	2062999		1886242		3796353	
<b>j. Education</b>	7431249		12206249		7666943	
<b>k. Other</b>						
<b>ACF</b>	250000		725000		540859	
<b>DOJ</b>	0		449779		400000	
<b>SAMHSA</b>	0		0		850000	
<b>Dept of Justice</b>	455869		0		0	

### Form 5, State Title V Program Budget and Expenditures by Types of Services (II)

	FY 2009		FY 2010		FY 2011	
	Budgeted	Expended	Budgeted	Expended	Budgeted	Expended
<b>I. Direct Health Care Services</b>	30162582	28623540	19132713		18682857	
<b>II. Enabling Services</b>	24812843	24050140	19532363		19243538	
<b>III. Population-Based Services</b>	15001462	14076936	9346854		9639643	
<b>IV. Infrastructure Building Services</b>	18033289	15678254	15043179		14114112	
<b>V. Federal-State Title V Block Grant Partnership Total</b>	88010176	82428870	63055109		61680150	

### A. Expenditures

See the FY09 Expended columns in Form 3 (State MCH Funding Profile), Form 4 (Budget Details by Types of Individuals Served), and Form 5 (State Title V Programs Budget and Expenditures by Types of Services). The Form and Field Notes for the Forms provide additional details and explanations about the amounts shown, including differences between budgeted and expended amounts, changes in the levels of funding categories across years, and the sources of state Partnership funds and other Federal funds.

It may appear from Forms 4 and 5 that Massachusetts distributes our funding among MCH Population groups and service types in a variable manner from year to year. This picture is misleading, however, because these Forms present the entire MCH Federal-State Partnership budget, which in our case has been as high as 89% and is now approximately 80% for FY11. We have flexibility in allocating federal Block Grant funds, while the populations to be served by state appropriations are usually closely controlled by the more categorical or earmarked nature of state budget language. A more accurate picture of our commitment to the MCH Populations and Types of Services may be seen in the tables attached to Part V, Section B, which presents data with federal funds and state funds separately over several years. These tables illustrate that the majority of the year to year variation in the relative distribution of funds across population groups is due to variations in state funding. In addition, the target populations for the state funds, as well as the types of services specified by the Legislature, shape the overall percentage distribution of funds across the MCH Pyramid and MCH population groups.

The year to year variation within state funds leveled off for several years through FY09, so that the total percentage shares have remained very consistent. This is particularly true for FY10 and FY11, when the dominant pattern has been across-the-board state budget cuts, rather than increases for specific programs areas. However, this pattern remains susceptible to change each year due to changes in the state budget and relative budget priorities at the state level.

Another complicating factor is that increasing amounts of our Partnership state funds are being claimed as match for other federal programs, especially TANF and Medicaid (including FMAP). As we have historically had a very large "over-match" for the MCH Block Grant, and the funds continue to be used for the MCH-related programs, this makes obvious sense for the Commonwealth in order to maximize federal funding. However, as funds are used for these other matching requirements, they are of course removed from the MCH Federal-State Partnership spreadsheets so it does not appear that we are double-counting state match. The result is a gradual reduction in the "over-match" amount and percent -- a trend exacerbated in the last several years by actual outright reductions in state funding. This trend is also increasing interest in using the remaining "over match" for other programs as their historical sources of state match dry up. Because these types of claiming are made against expenditures, the changes will often appear as differences in reported expenditures vs. budgeted amounts, as the final claiming is negotiated and applied after our budgets have been submitted.

## **B. Budget**

The FY11 budget in Forms 2, 3, 4, and 5 reflects the same concerning budget situation at the state level as last year. Federal MCH funds remain steady and we have been able to achieve some cost-savings to stretch them further programmatically.

However, like almost all states, Massachusetts continues to experience a budget crisis of unprecedented proportions, with no real evidence of relief in sight. The FY11 state budget is significantly lower than FY10, which in turn was significantly lower than FY09. So after stabilizing and experiencing some gains over the previous several years, including some new areas of support from the state, the shape and scope of virtually all state programs will be shrinking or changing again in FY11. Some new initiatives will disappear altogether and further cuts during FY11 are very likely.

To add to the difficulties presented by the state budget, health insurance costs for employees are not immune to the general impact of rising health care costs in Massachusetts. This has resulted in increases to the fringe benefit rates charged on federal accounts in each of the last two years; each federal salary dollar now requires just over 50 cents for fringe benefits and indirect costs. Without any substantial increases in our MCH Block Grant funding level, these increases alone are now putting strain on the federal budget again after a few years of relief. These increased

costs just to maintain equilibrium are coming at a time when there is enormous pressure and need to fill some critical state funding shortfalls with federal funds until the economy improves.

The Bureau works closely with the MDPH Budget Office and our colleagues in other bureaus to plan for the various contingencies necessary as the state budget is developed, passed, and revised each fiscal year.

The total Partnership budget is made up of \$12,250,000 of MCH Block Grant funds (including carry-forward funds) and \$49,430,150 in state funds (down from an initial \$76,266,360 in FY09.) Massachusetts continues to budget at least 30% of our federal MCH funds for Preventive and Primary Care for Children (30.04%) and for Children with Special Health Care Needs (36.06%). The proportion of federal funds used for Title V Administrative Costs is within the allowable 10% (9.27%). Massachusetts continues to commit funds above our statutory maintenance of effort level from FY1989 of \$23.5M and the state funding still includes Over Match of over \$40M. See the Notes to Form 2 for details.

The \$145,789,844 of Other Federal funds for FY11 comes from over 25 different grants and Interagency Service Agreements with sister agencies. The Bureau continues to have good success in obtaining a wide range of federal categorical grants.

The budget forms do not include substantial amounts of state funding for MCH programs that are used for match for other federal programs (TANF and Medicaid FMAP in particular, along with other smaller discretionary grants). The programmatic efforts supported by the funds continue to be fully described in our annual reports and plans.

For a more detailed picture of the different distribution of federal and state funds across the MCH Populations and the MCH Pyramid, see the attachment to this Section. Due to its categorical nature, the impact of changes in state funding (now about 80% of the Partnership budget) is not always felt equally across all MCH population groups. Patterns of funding stabilized for several years, but the impact of major budget cuts is causing them to fluctuate again.

***An attachment is included in this section.***

## **VI. Reporting Forms-General Information**

Please refer to Forms 2-21, completed by the state as part of its online application.

## **VII. Performance and Outcome Measure Detail Sheets**

For the National Performance Measures, detail sheets are provided as a part of the Guidance. States create one detail sheet for each state performance measure; to view these detail sheets please refer to Form 16 in the Forms section of the online application.

For the detail sheets and objectives for the state performance measures developed from the 2010 needs assessment, refer to TVIS Forms, Form 11 and Form 16 under the section "New State Performance Measure Detail Sheets and Data."

## **VIII. Glossary**

A standard glossary is provided as a part of the Guidance; if the state has also provided a state-specific glossary, it will appear as an attachment to this section.

## **IX. Technical Note**

Please refer to Section IX of the Guidance.

## **X. Appendices and State Supporting documents**

### **A. Needs Assessment**

Please refer to Section II attachments, if provided.

### **B. All Reporting Forms**

Please refer to Forms 2-21 completed as part of the online application.

### **C. Organizational Charts and All Other State Supporting Documents**

Please refer to Section III, C "Organizational Structure".

### **D. Annual Report Data**

This requirement is fulfilled by the completion of the online narrative and forms; please refer to those sections.